CEFIPRA

Indo-French Centre for the Promotion of Advanced Research (IFCPAR)

Centre Franco-Indien pour la Promotion de la Recherche Avancée (CEFIPRA)

RESEARCH PUBLICATIONS 2018-22

A Bibliometric Analysis

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Research Publications – 2018 to 2022

A Bibliometric Study

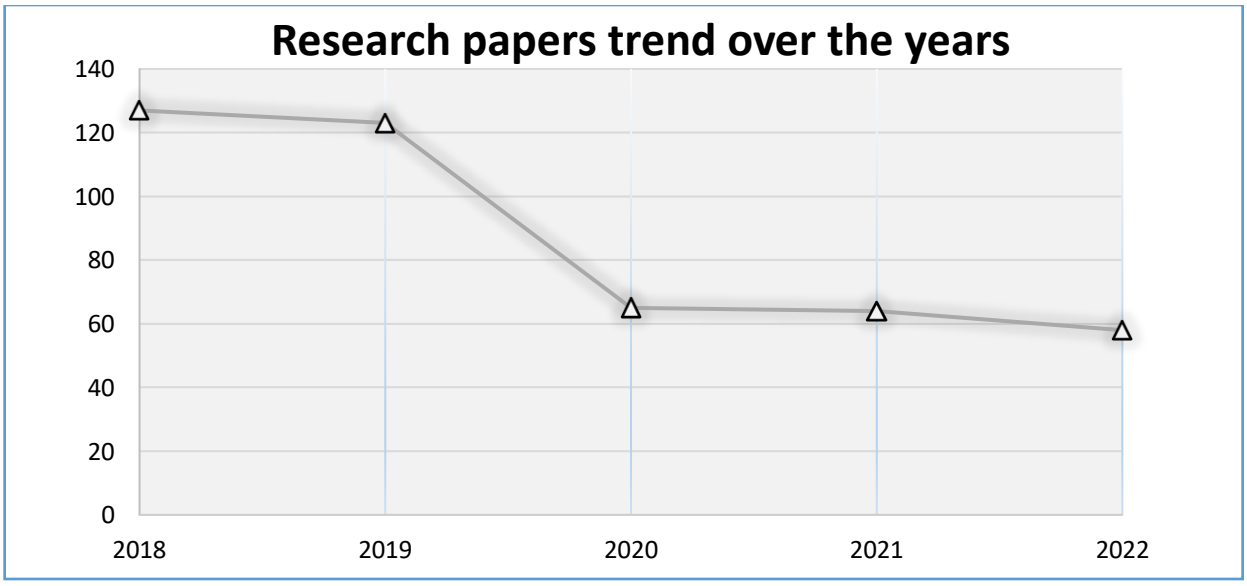
Introduction

Research papers are an important and a predominant form of scientific research output. Analysis of research papers of nations, regions, institutions, projects or individuals gives an insight on the quantitative and qualitative aspects of the research.

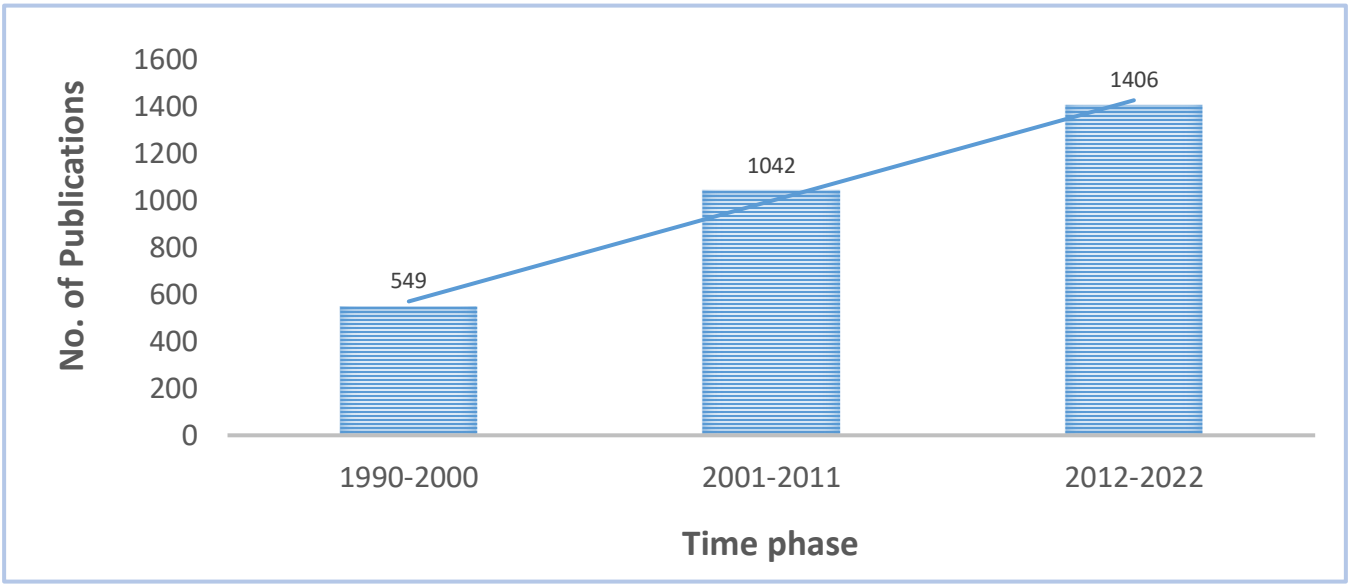
Indo-French Centre for the Promotion of Advanced Research (IFCPAR/CEFIPRA) is a model for international collaborative research in advanced areas of Science & Technology. The Centre was established in 1987 and is being supported by Department of Science & Technology (DST), Government of India and the Ministry for Europe & Foreign Affairs, Government of France.

CEFIPRA is actively involved in supporting Indo-French Science, Technology & Innovation (ST&I) system through its various activities. The publications that have been resulted from Scientific Collaborative Research Programme of CEFIPRA focuses on academia-to-academia collaborations between Indian and French academic collaborators in various domains.

During the year 2018-22, 425 papers were published from 108 projects of CEFIPRA. This report presents a bibliometric analysis of these 425 papers, herein referred to as the CEFIPRA research papers.



CEFIPRA publication trend in decades



CEFIPRA Research Papers from Projects

The number of papers emanating from a project depends on several factors such as the nature of project, subject area of project, number of scientists and researchers working in the project, number of collaborators in the project and so on. It is seen that on an average, 3.94 research papers resulted from each of the 108 CEFIPRA projects.

- *On an average, 3.94 research papers resulted from each of the 108 CEFIPRA Projects.*
- *48.94% of CEFIPRA research papers have been published from 16 projects*
- *One project (5904-1) has published maximum of 36 papers.*

The project, "Modelling and observing pulsars: from high energy to radio emission" (Project code 5904-1) produced the maximum number of 36 papers. There are 24 projects that have produced six or more papers during 2018 to 2022. Further, it is seen that nearly 72.47% of the papers were published from 41 projects. In addition to a ranked list of projects based on the number of papers published, a ranked list of projects based on the average Impact Factor shows that there are 15 projects that have an average impact factor above 10.

Collaboration in CEFIPRA Research Papers

CEFIPRA is a model of bilateral scientific collaboration between India and France. As a result of this collaboration, one hundred and forty four out of 425 research papers (33.88%) are from 108 CEFIPRA Projects.

- *57 papers have 10 or more authors, a reflection of wider collaboration*

Mega-authorship papers are those papers that have 10 or more authors. Mega-authorship trend is rapidly growing with certain consortium papers that have hundreds of authors. It is seen that out of 425 CEFIPRA research papers, 57 papers had 10 or more authors.

Centre National de la Recherche Scientifique (CNRS) is the top collaborator from France with 82 out of 425 papers. The second most productive institution from France is Université de Strasbourg with 36 papers. From India, the most productive institutions are the Indian Institutes of Technology (IITs) followed by Tata Institute of Fundamental Research (TIFR).

Prominent French Institutes

Prominent Indian Institutes

Preferred journals for publishing

Four hundred and twenty five CEFIPRA papers were published in 241 unique journals and proceedings. These 241 journals are spread across 15 subject areas. The most number of 26 CEFIPRA papers were published in the Monthly Notices of the Royal Astronomical Society (Impact Factor: 5.235). These 26 papers were published from 4 projects.

It is also seen that 45.88% of the CEFIPRA papers are published in 36 journals. That being so, it can be said that during the year 2018-2022, these set of 36 journals are the preferred choice for CEFIPRA publications.

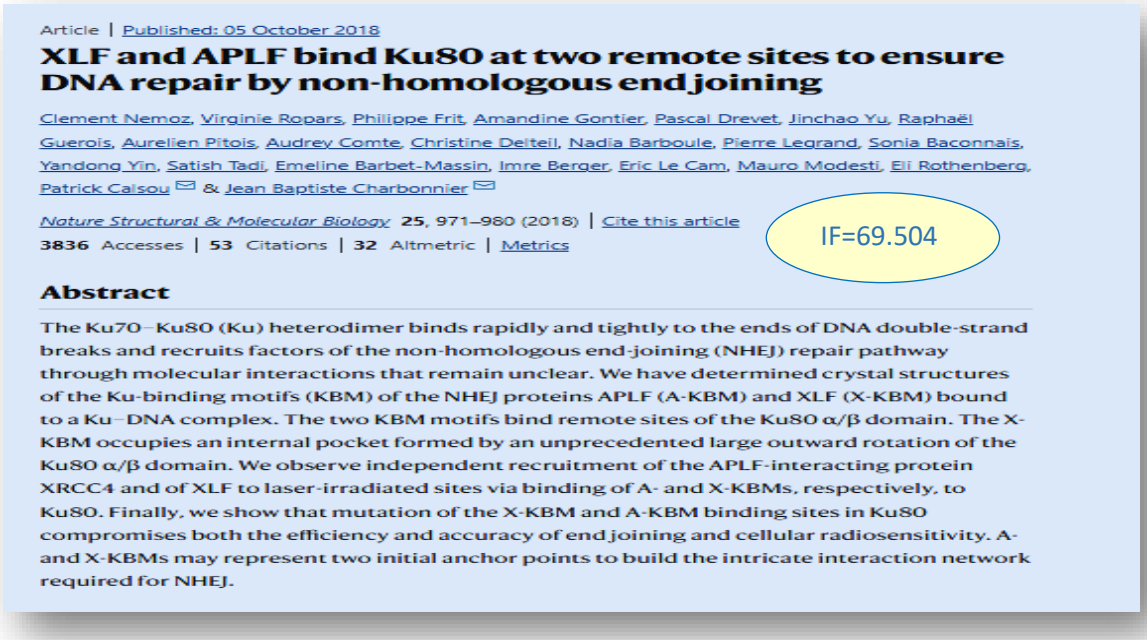
S. No.	Journal	No. of Papers	IF-2022
1.	MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY	26	5.235
2.	ASTRONOMY & ASTROPHYSICS	12	6.24
3.	PHYSICAL REVIEW B	10	3.902
4.	NATURE COMMUNICATIONS	9	17.763
5.	PHYSICAL REVIEW A	9	2.971
6.	PHYSICAL REVIEW LETTERS	8	9.185
7.	PHYSICAL REVIEW C	8	3.199
8.	PHYSICAL REVIEW D	7	5.407
9.	ASTROPHYSICAL JOURNAL	6	5.521
10.	PHYSICAL REVIEW E	6	2.707
11.	INORGANIC CHEMISTRY	6	5.436

12.	CHEMISTRY—A EUROPEAN JOURNAL	6	5.02
13.	EUROPEAN JOURNAL OF ORGANIC CHEMISTRY	5	3.261
14.	ORGANIC LETTERS	5	6.072
15.	ANGEWANDTE CHEMIE INTERNATIONAL EDITION	5	16.823
16.	JOURNAL OF HIGH ENERGY PHYSICS (JHEP)	4	3.679
17.	ACS PHOTONICS	4	7.077
18.	THE ASTROPHYSICAL JOURNAL LETTERS	4	8.811
19.	COORDINATION CHEMISTRY REVIEWS	4	24.833
20.	SCIENTIFIC REPORTS	3	5.516
21.	THE FEBS JOURNAL	3	5.85
22.	NEW JOURNAL OF PHYSICS	3	3.716
23.	ADVANCED OPTICAL MATERIALS	3	10.05
24.	SOFT MATTER	3	4.046
25.	JOURNAL OF PHYSICS A: MATHEMATICAL AND THEORETICAL	3	2.331
26.	DALTON TRANSACTION	3	4.569
27.	ACS CATALYSIS	3	13.7
28.	CURRENT BIOLOGY	3	10.9
29.	PHYSICAL REVIEW FLUIDS	3	2.895
30.	BIOCHIMIE	3	4.372
31.	JOURNAL OF FLUID MECHANICS	3	4.245
32.	ACS APPLIED ENERGY MATERIALS	3	6.959
33.	NANOMATERIALS	3	5.719

34.	PHYSICAL REVIEW RESEARCH	3	0
35.	CHEMICAL COMMUNICATIONS	3	6.065
36.	PLOS PATHOGENS	3	7.464

The Impact Factors of journals represent the quality of the journals. The Average Impact Factor of the journals in which CEFIPRA Papers have been published during 2018 to 2022 is 5.85.

One of the highlights is the publication of the CEFIPRA Paper “XLF and APLF bind Ku80 at two remote sites to ensure DNA repair by non-homologous end joining, Clement Nemoz; Virginie Ropars; Philippe Frit; Amandine Gontier; Pascal Dreve; Jinchao Yu; Raphaël Guerois; Aurelien Pitois; Audrey Comte; Christine Delteil; Nadia Barboule; Pierre Legrand; Sonia Baconnais; Yandong Yin; Satish Tadi; Emeline Barbet Massin; Imre Berger; Eric Le Cam; Mauro Modesti; Eli Rothenberg; Patrick Calsou and Jean Baptiste Charbonnier, NATURE STRUCTURAL & MOLECULAR BIOLOGY VOL 25” wherein the journal has a high Impact Factor of 69.504. Other high Impact Factor journals in which articles have been published include REVIEWS OF MODERN PHYSICS (Impact Factor: 50.485), SCIENCE IMMUNOLOGY (Impact Factor: 30.36).



Article | Published: 05 October 2018

XLF and APLF bind Ku80 at two remote sites to ensure DNA repair by non-homologous end joining

Clement Nemoz, Virginie Ropars, Philippe Frit, Amandine Gontier, Pascal Drevet, Jinchao Yu, Raphaël Guerois, Aurelien Pitois, Audrey Comte, Christine Delteil, Nadia Barboule, Pierre Legrand, Sonia Baconnais, Yandong Yin, Satish Tadi, Emeline Barbet-Massin, Imre Berger, Eric Le Cam, Mauro Modesti, Eli Rothenberg, Patrick Calsou & Jean Baptiste Charbonnier

Nature Structural & Molecular Biology **25**, 971–980 (2018) | Cite this article

3836 Accesses | **53** Citations | **32** Altmetric | Metrics

IF=69.504

Abstract

The Ku70–Ku80 (Ku) heterodimer binds rapidly and tightly to the ends of DNA double-strand breaks and recruits factors of the non-homologous end-joining (NHEJ) repair pathway through molecular interactions that remain unclear. We have determined crystal structures of the Ku-binding motifs (KBM) of the NHEJ proteins APLF (A-KBM) and XLF (X-KBM) bound to a Ku–DNA complex. The two KBM motifs bind remote sites of the Ku80 α/β domain. The X-KBM occupies an internal pocket formed by an unprecedented large outward rotation of the Ku80 α/β domain. We observe independent recruitment of the APLF-interacting protein XRCC4 and of XLF to laser-irradiated sites via binding of A- and X-KBMs, respectively, to Ku80. Finally, we show that mutation of the X-KBM and A-KBM binding sites in Ku80 compromises both the efficiency and accuracy of end joining and cellular radiosensitivity. A- and X-KBMs may represent two initial anchor points to build the intricate interaction network required for NHEJ.

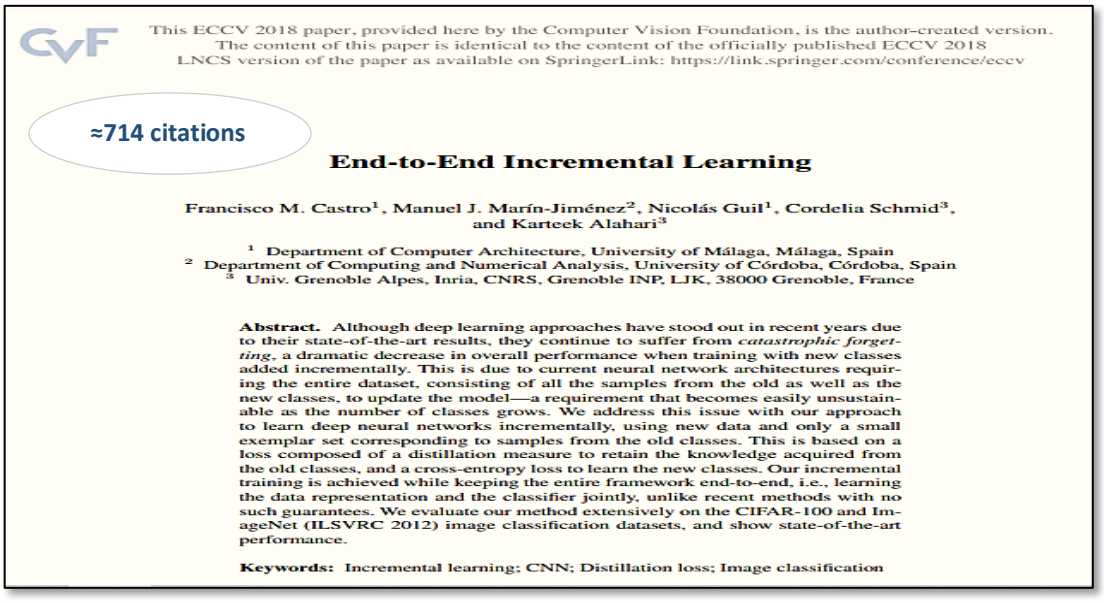
Subject areas of CEFIPRA papers and projects

CEFIPRA projects are supported across 15 subject areas/domains of science and technology. The "Pure and Applied Physics" domain that has 31 projects, contributed the maximum number of 169 papers (39.76 %) followed by "Life and Health Sciences" with 89 papers and "Pure and Applied Chemistry" with 71 papers. A look at the average Impact Factors of these subject areas reveals that "Biotechnology" area has highest average Impact Factor of 10.723.

Citation profile of CEFIPRA papers

While Impact Factor is a proxy of a journal's relative importance in a given field, it may not be a suitable indicator for assessing the importance of an article published in a journal. Citations and citation based indicators give a more realistic assessment of journal articles. Citations accrue over a period of time and there are papers that have not received citations or have received fewer in the first few years but in the subsequent years, went on to be highly cited.

It is seen that 33 papers have already received 40 or more citations. And out of the 425 papers, 390 papers have received a total of 6756 citations till date. Thirty five papers are yet to receive any citation. It is indeed noteworthy that 23.06% of CEFIPRA papers received citations in less than two years of their publication. The Conference paper, "End-to-End Incremental Learning" published in *EUROPEAN CONFERENCE ON COMPUTER VISION*, MUNICH, GERMANY already received 714 citations. And the paper, "Deformation and flow of amorphous solids: Insights from elastoplastic models" published in *REVIEWS OF MODERN PHYSICS* received 261 citations. Six papers have received 80 or more citations.



≈714 citations

End-to-End Incremental Learning

Francisco M. Castro[1], Manuel J. Marín-Jiménez[2], Nicolás Guil[1], Cordelia Schmid[3], and Karteek Alahari[3]

[1] Department of Computer Architecture, University of Málaga, Málaga, Spain
[2] Department of Computing and Numerical Analysis, University of Córdoba, Córdoba, Spain
[3] Univ. Grenoble Alpes, Inria, CNRS, Grenoble INP, LJK, 38000 Grenoble, France

Abstract. Although deep learning approaches have stood out in recent years due to their state-of-the-art results, they continue to suffer from *catastrophic forgetting*, a dramatic decrease in overall performance when training with new classes added incrementally. This is due to current neural network architectures requiring the entire dataset, consisting of all the samples from the old as well as the new classes, to update the model—a requirement that becomes easily unsustainable as the number of classes grows. We address this issue with our approach to learn deep neural networks incrementally, using new data and only a small exemplar set corresponding to samples from the old classes. This is based on a loss composed of a distillation measure to retain the knowledge acquired from the old classes, and a cross-entropy loss to learn the new classes. Our incremental training is achieved while keeping the entire framework end-to-end, i.e., learning the data representation and the classifier jointly, unlike recent methods with no such guarantees. We evaluate our method extensively on the CIFAR-100 and ImageNet (ILSVRC 2012) image classification datasets, and show state-of-the-art performance.

Keywords: Incremental learning; CNN; Distillation loss; Image classification

Top papers with 80 or more citations

S. No.	Project code	Papers	Citations	Impact Factor of 2022
1	5302-1	End-to-End Incremental Learning Francisco Castro, Manuel Marín-Jiménez, Nicolás Guil, Cordelia Schmid, Karteek Alahari EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV 2018), SEP 2018, MUNICH, GERMANY. 2018, <HAL-01849366>ECCV 2018	714	0
2	5604-1	Deformation and flow of amorphous solids: Insights from elastoplastic models Alexandre Nicolas, Ezequiel E. Ferrero, Kirsten Martens and Jean-Louis Barrat REVIEWS OF MODERN PHYSICS, VOLUME 90, OCTOBER–DECEMBER 2018, DOI: 10.1103/REVMODPHYS.90.045006	261	50.485
3	5104-2	Optical soliton molecular complexes in a passively mode-locked fibre laser Z.Q. Wang, K. Nithyanandan, A. Coillet, P. Tchofo-Dinda, Ph. Grelu NATURE COMMUNICATIONS (2019) 10:830 HTTPS://DOI.ORG/10.1038/S41467-019-08755-4	163	17.763
4	5302-1	Actor and Observer: Joint Modeling of First and Third-Person Videos Gunnar Sigurdsson, Abhinav Gupta, Cordelia Schmid, Ali Farhadi, Karteek Alahari JOINT MODELING OF FIRST AND THIRD-PERSON VIDEOS. CVPR 2018 - IEEE CONFERENCE ON COMPUTER VISION < HAL 01755547>	96	0
5	5108-1	Polymer Derived Si–B–C–N Ceramics: 30 Years of Research Antoine Viard, Diane Fonblanc, David LopezĞFerber, Marion Schmidt, Abhijeet Lale, Charlotte Durif, Maxime Balestrat, Fabrice Rossignol, Markus Weinmann, Ralf Riedel and Samuel Bernard ADVANCED ENGINEERING MATERIALS, 20, 2018, 1800360; DOI: 10.1002/ADEM.201800360	84	4.122

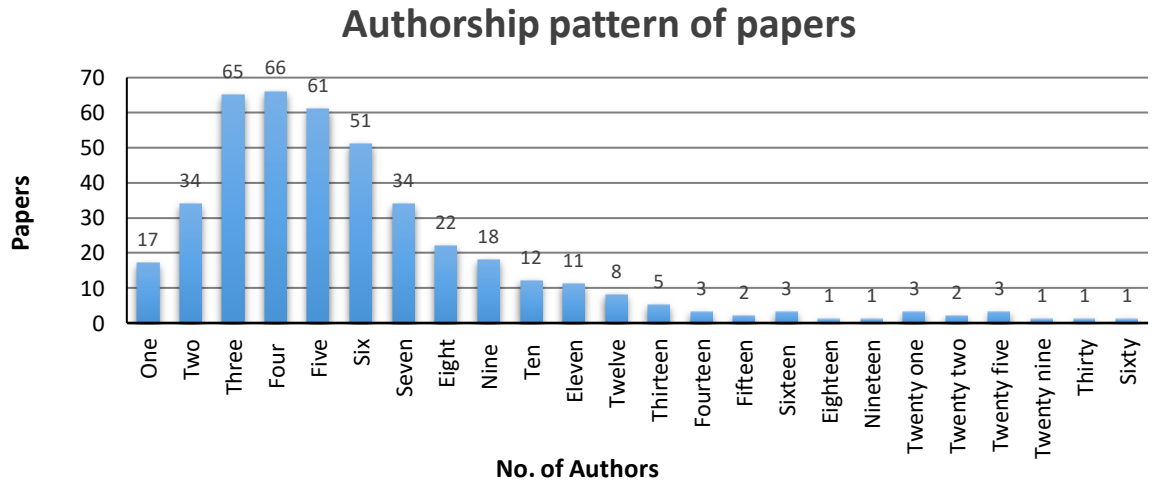
6	5203-2	Halogens in Protein−Ligand Binding Mechanism: A Structural Perspective Nicolas K. Shinada, Alexandre G. de Brevern, Peter Schmidtke J. MED. CHEM. (2019) 62: 9341−9356 DOI: 10.1021/ACS.JMEDCHEM.8B01453	81	8.039

Conclusion

Between 2018 and 2022, 425 research papers were published from CEFIPRA funded projects. Pure And Applied Physics is the dominant subject area of research collaboration between France and India. Living to the collaboration mandate of CEFIPRA, 33.88% papers are collaborative papers and in addition to France and India. The research papers have been published in a large number of journals of high impact and in less than 2 years, 23.06% of the CEFIPRA papers have already been cited.

Annexure 1

Authorship pattern of papers		
S. No.	**No. of Authors**	**Papers**
1	One	17
2	Two	34
3	Three	65
4	Four	66
5	Five	61
6	Six	51
7	Seven	34
8	Eight	22
9	Nine	18
10	Ten	12
11	Eleven	11
12	Twelve	8
13	Thirteen	5
14	Fourteen	3
15	Fifteen	2
16	Sixteen	3
18	Eighteen	1
19	Nineteen	1
20	Twenty one	3
21	Twenty two	2
22	Twenty five	3
23	Twenty nine	1
24	Thirty	1
25	Sixty	1
Total		**425**



Annexure 2

List of Journals based on number of papers			
S.NO.	**Journal**	**Total Papers**	**IF-2022**
1	MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY	26	5.235
2	ASTRONOMY & ASTROPHYSICS	12	6.24
3	PHYSICAL REVIEW B	10	3.902
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25	JOURNAL OF PHYSICS A: MATHEMATICAL AND THEORETICAL	3	2.331
26	DALTON TRANSACTION	3	4.569
27	ACS CATALYSIS	3	13.7
28	CURRENT BIOLOGY	3	10.9
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30	BIOCHIMIE	3	4.372
31	JOURNAL OF FLUID MECHANICS	3	4.245
32	ACS APPLIED ENERGY MATERIALS	3	6.959
33	NANOMATERIALS	3	5.719
34	PHYSICAL REVIEW RESEARCH	3	0

35	CHEMICAL COMMUNICATIONS	3	6.065
36	PLOS PATHOGENS	3	7.464
37	EMBO REPORTS	2	9.071
38	JOURNAL OF CELL SCIENCE	2	6.129
39	PLOS COMPUTATIONAL BIOLOGY	2	4.779
40	PLOS ONE	2	3.752
41	JOURNAL OF MOLECULAR STRUCTURE	2	3.841
42	JOURNAL OF THE OPTICS	2	2.077
43	JOURNAL OF THEORETICAL AND APPLIED PHYSICS	2	0
44	PERFORMANCE EVALUATION	2	2.205
45	JOURNAL OF ORGANIC CHEMISTRY	2	4.198
46	ACTA MATERIALIA	2	9.209
47	JOINT MODELING OF FIRST AND THIRD-PERSON VIDEOS. CVPR*	2	0
48	JOURNAL OF STATISTICAL PHYSICS	2	1.762
49	NANOSCALE ADVANCES	2	5.598
50	CHEMISTRY-AN ASIAN JOURNAL	2	4.839
51	JOURNAL OF MEDICINAL CHEMISTRY	2	8.039
52	CHEMCATCHEM	2	5.497
53	FRONTIERS IN IMMUNOLOGY	2	8.786
54	MOLECULAR BIOLOGY OF THE CELL	2	3.612
55	ORGANOMETALLICS	2	3.837
56	PROCEEDINGS OF THE ROYAL SOCIETY OF EDINBURGH SECTION A-MATHEMATICS*	2	1.327
57	MOLECULAR PLANT-MICROBE INTERACTIONS	2	3.422
58	DALTON TRANSACTIONS	2	4.569
59	JOURNAL OF PHYSICS G: NUCLEAR AND PARTICLE PHYSICS	2	3.519
60	EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS	2	2.891
61	ADVANCED MATERIALS INTERFACES	2	6.389
62	SCIENCE IMMUNOLOGY	1	30.36
63	EXPERT OPINION ON DRUG DISCOVERY	1	7.05
64	EMBO MOLECULAR MEDICINE	1	14.4
65	CURRENT DRUG DELIVERY	1	3.758
66	JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY	1	5.062
67	REGENERATIVE ENGINEERING AND TRANSLATIONAL MEDICINE	1	0
68	JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY	1	1.354
69	JOURNAL OF INVESTIGATIVE DERMATOLOGY	1	7.59

70	CELL DEATH AND DISEASE	1	9.685
71	HEPATOLOGY COMMUNICATIONS	1	5.701
72	JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH	1	0
73	IMMUNOLOGICAL INVESTIGATION	1	3.044
74	HELIYON 5	1	3.776
75	TRANSFUSION	1	3.337
76	TRANSFUSION MEDICINE AND HEMOTHERAPY	1	4.04
77	TOXINS	1	5.075
78	ARCHIVES OF BIOLOGICAL SCIENCES	1	0.856
79	PROTEIN SCIENCE	1	6.993
80	NATURE STRUCTURAL & MOLECULAR BIOLOGY	1	69.504
81	NUCLEIC ACIDS RESEARCH	1	19.16
82	BMC MICROBIOLOGY	1	4.465
83	PHARMACEUTICS	1	6.525
84	SPECTROCHIMICA ACTA	1	4.831
85	JOURNAL OF PROTEOMICS	1	3.855
86	BIOESSAYS	1	4.653
87	CARBOHYDRATE POLYMERS	1	10.723
88	JOURNAL OF MICROBIOLOGICAL METHODS	1	2.622
89	PLANT AND SOIL	1	4.993
90	JOURNAL OF SOIL SCIENCE AND PLANT NUTRITION	1	3.61
91	JOURNAL OF THE INDIAN SOCIETY OF SOIL SCIENCE	1	0
92	MINERALS	1	2.818
93	PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING	1	1.047
94	PEDIATRIC RESEARCH	1	3.953
95	JOURNAL OF COMPUTATIONAL PHYSICS	1	4.645
96	THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA	1	2.482
97	AIP ADVANCES	1	1.697
98	FLUID DYNAMICS RESEARCH	1	1.5
99	FRONTIERS IN ASTRONOMY AND SPACE SCIENCES	1	4.055
100	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	1	3.097
101	RSC ADVANCES	1	4.036
102	JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B	1	2.058
103	OPTICS COMMUNICATIONS	1	2.335
104	ROMANIAN REPORTS IN PHYSICS	1	2.085
105	OPTICS LETTER	1	3.56
106	APPLIED OPTICS	1	1.905

107	EUROPEAN PHYSICAL JOURNAL B	1	1.398
108	REVIEWS OF MODERN PHYSICS	1	50.485
109	ANNALS OF OPERATIONS RESEARCH	1	4.82
110	SMALL	1	15.153
111	CATALYSIS COMMUNICATIONS	1	3.51
112	CHEMPHOTOCHEM	1	3.679
113	MATERIALS & DESIGN	1	9.417
114	MATERIALS	1	3.748
115	CALPHAD	1	2.004
116	SURFACE AND COATINGS TECHNOLOGY	1	4.865
117	ADVANCED ENGINEERING MATERIALS	1	4.122
118	CHEMPLUSCHEM	1	3.21
119	THE JOURNAL OF CHEMICAL PHYSICS	1	4.304
120	SOLID STATE NUCLEAR MAGNETIC RESONANCE	1	2.812
121	CHEMNANOMAT	1	3.82
122	ANNUAL REPORTS ON NMR SPECTROSCOPY	1	2.074
123	JOURNAL OF MAGNETIC RESONANCE	1	2.734
124	APPLICATIONS OF TARGETED NANO DRUGS AND DELIVERY SYSTEMS	1	0
125	IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*	1	5.59
126	EUROPEAN CONFERENCE ON COMPUTER VISION*	1	0
127	BRITISH MACHINE VISION CONFERENCE*	1	0
128	IEEE CONFERENCE ON AUTOMATIC FACE AND GESTURE RECOGNITION*	1	0
129	PROCEEDINGS OF WIOPT, SHANGHAI*	1	0
130	JOURNAL OF PHYSICS B: ATOMIC, MOLECULAR AND OPTICAL PHYSICS	1	1.655
131	THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES	1	9.2
132	NANOSCALE	1	8.307
133	JOURNAL OF PHYSICS D-APPLIED PHYSICS	1	3.409
134	PLOS BIOLOGY	1	9.593
135	JOURNAL OF THE GEOLOGICAL SOCIETY	1	3.288
136	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	1	7.139
137	BIOCHEMICAL ENGINEERING JOURNAL	1	4.446
138	INORGANICS	1	3.149
139	ENVIRONMENT AND PLANNING A: ECONOMY AND SPACE	1	3.79
140	NEW JOURNAL OF CHEMISTRY	1	3.925
141	ACS OMEGA	1	4.132

142	CHEMSUSCHEM	1	9.14
143	ORGANIC CHEMISTRY FRONTIERS	1	7.779
144	ACS APPLIED MATERIALS & INTERFACES	1	10.383
145	ASIAN JOURNAL OF ORGANIC CHEMISTRY	1	3.116
146	CHIRALITY	1	2.183
147	JOURNAL OF PHYSICS: CONDENSED MATTER	1	2.745
148	JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS	1	7.28
149	PHYSICS LETTERS B	1	4.95
150	BIOINFORMATION	1	0
151	JOURNAL OF BIOMOLECULAR STRUCTURE AND DYNAMICS	1	4.297
152	FEBS OPEN BIO	1	2.792
153	JOURNAL OF BIOLOGICAL CHEMISTRY	1	5.486
154	SOURCE CODE FOR BIOLOGY AND MEDICINE	1	0
155	AMINO ACIDS	1	3.789
156	JOURNAL OF DRUG TARGETING	1	5.016
157	BIOCONJUGATE CHEMISTRY	1	6.069
158	DATA IN BRIEF	1	0
159	BLOOD	1	25.476
160	NATURE PROTOCOLS	1	17.021
161	TRENDS IN GENETICS	1	11.821
162	PNAS	1	0
163	NATURE GEOSCIENCE	1	21.531
164	ATMOSPHERIC CHEMISTRY AND PHYSICS DISCUSSIONS	1	7.197
165	JOURNAL OF PHYSICAL CHEMISTRY LETTERS	1	6.888
166	NPJ 2D MATERIALS AND APPLICATIONS	1	10.516
167	MACROMOLECULAR CHEMISTRY AND PHYSICS	1	2.996
168	METHODS FOR ELECTROCATALYSIS*	1	0
169	GDI WORKING PAPER*	1	0
170	PROCEEDINGS OF THE ROYAL SOCIETY A*	1	0
171	ACS ENERGY LETTERS	1	23.991
172	APPLIED SURFACE SCIENCE	1	7.392
173	CHAOS	1	3.741
174	EMBO JOURNAL	1	14.012
175	FRONTIERS IN MICROBIOLOGY	1	6.064
176	INFECTION AND IMMUNITY	1	3.609
177	INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY	1	2.148

178	INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY	1	2.731
179	JOURNAL OF APPLIED PHYSICS	1	2.877
180	JOURNAL OF CELL BIOLOGY	1	8.077
181	JOURNAL OF COLLOID AND INTERFACE SCIENCE	1	9.965
182	JOURNAL OF MOLECULAR BIOLOGY	1	6.151
183	MOLECULES	1	4.927
184	NANO LETTERS	1	12.262
185	NATURE ASTRONOMY	1	15.647
186	TETRAHEDRON LETTERS	1	2.032
187	TRANSACTIONS OF THE INDIAN NATIONAL ACADEMY OF ENGINEERING	1	0
188	UNIVERSE	1	2.813
189	JOURNAL OF PHYSICS: PHOTONICS	1	0
190	ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS	1	0
191	APPLIED MATERIALS TODAY	1	8.663
192	IEEE TRANSACTIONS ON PLASMA SCIENCE*	1	1.368
193	JOURNAL OF PHYSICS: CONFERENCE SERIES*	1	0
194	IEEE INTERNATIONAL CONFERENCE ON EMERGING ELECTRONICS (ICEE)*	1	0
195	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*	1	12.779
196	BIOMEDICINES	1	4.757
197	BMC BIOLOGY	1	7.364
198	CARBOHYDRATE CHEMISTRY	1	1.667
199	NATURE CELL BIOLOGY	1	28.213
200	MOLECULAR MICROBIOLOGY	1	3.979
201	FRONTIERS IN CELL AND DEVELOPMENTAL BIOLOGY	1	6.081
202	LIFE SCIENCE ALLIANCE	1	5.781
203	JOURNAL OF ORGANOMETALLIC CHEMISTRY	1	2.345
204	JOURNAL OF PHYSICAL CHEMISTRY A	1	2.944
205	JOURNAL OF NONCOMMUTATIVE GEOMETRY	1	0.768
206	INTEGRAL EQUATIONS AND OPERATOR THEORY	1	0.72
207	SOLAR ENERGY MATERIALS AND SOLAR CELLS	1	7.305
208	SOLAR ENERGY	1	7.188
209	JOURNAL OF SOLID STATE ELECTROCHEMISTRY	1	2.747
210	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	1	2.779
211	PHYSICAL REVIEW APPLIED	1	4.931
212	EUROPEAN PHYSICAL JOURNAL A	1	3.131

213	LIFE	1	3.253
214	FLUIDS	1	0
215	PROCEEDINGS OF THE DAE SYMPOSIUM ON NUCLEAR PHYSICS*	1	0
216	PROCEEDINGS OF THE LONDON MATHEMATICAL SOCIETY*	1	1.649
217	ACS CHEMICAL NEUROSCIENCE	1	5.78
218	JOURNAL OF PEPTIDE SCIENCE	1	2.408
219	THE JOURNAL OF THE MINERALS, METALS & MATERIALS SOCIETY (TMS)	1	2.597
220	NANOTECHNOLOGY	1	3.953
221	COMMUNICATIONS IN MATHEMATICAL PHYSICS	1	2.361
222	DISCRETE ANALYSIS	1	0.923
223	CHEMICAL GEOLOGY	1	4.685
224	ESTUARINE COASTAL AND SHELF SCIENCE	1	3.229
225	TRENDS IN PARASITOLOGY	1	10.528
226	CELL REPORTS	1	10.99
227	JOURNAL OF MOLECULAR SPECTROSCOPY	1	1.451
228	EPL	1	1.968
229	ADVANCED ELECTRONIC MATERIALS	1	7.633
230	APPLIED PHYSICS LETTERS	1	3.971
231	ACS APPLIED ELECTRONIC MATERIALS	1	4.494
232	ENVIRONMENTAL MICROBIOLOGY	1	5.476
233	DEVELOPMENT	1	6.862
234	CELL PRESS	1	6.233
235	CHEMICAL SCIENCE	1	9.969
236	ENERGY & FUELS	1	4.654
237	ELECTROCHIMICA ACTA	1	7.336
238	CONTRIBUTIONS TO MINERALOGY AND PETROLOGY	1	4.107
239	INTERNATIONAL JOURNAL OF MASS SPECTROMETRY	1	1.934
240	FRONTIERS IN CARDIOVASCULAR MEDICINE	1	5.846
241	2022 16TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP)*	1	0
***Proceeding and Conference**			

Annexure 3

List of Journals based on Impact Factor

S.No.	Journal	Total Papers	IF-2022
1	NATURE STRUCTURAL & MOLECULAR BIOLOGY	1	69.504
2	REVIEWS OF MODERN PHYSICS	1	50.485
3	SCIENCE IMMUNOLOGY	1	30.36
4	NATURE CELL BIOLOGY	1	28.213
5	BLOOD	1	25.476
6	COORDINATION CHEMISTRY REVIEWS	4	24.833
7	ACS ENERGY LETTERS	1	23.991
8	NATURE GEOSCIENCE	1	21.531
9	NUCLEIC ACIDS RESEARCH	1	19.16
10	NATURE COMMUNICATIONS	9	17.763
11	NATURE PROTOCOLS	1	17.021
12	ANGEWANDTE CHEMIE INTERNATIONAL EDITION	5	16.823
13	NATURE ASTRONOMY	1	15.647
14	SMALL	1	15.153
15	EMBO MOLECULAR MEDICINE	1	14.4
16	EMBO JOURNAL	1	14.012
17	ACS CATALYSIS	3	13.7
18	PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*	1	12.779
19	NANO LETTERS	1	12.262
20	TRENDS IN GENETICS	1	11.821
21	CELL REPORTS	1	10.99
22	CURRENT BIOLOGY	3	10.9
23	CARBOHYDRATE POLYMERS	1	10.723
24	TRENDS IN PARASITOLOGY	1	10.528
25	NPJ 2D MATERIALS AND APPLICATIONS	1	10.516
26	ACS APPLIED MATERIALS & INTERFACES	1	10.383
27	ADVANCED OPTICAL MATERIALS	3	10.05
28	CHEMICAL SCIENCE	1	9.969
29	JOURNAL OF COLLOID AND INTERFACE SCIENCE	1	9.965
30	CELL DEATH AND DISEASE	1	9.685
31	PLOS BIOLOGY	1	9.593
32	MATERIALS & DESIGN	1	9.417
33	ACTA MATERIALIA	2	9.209
34	THE ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES	1	9.2
35	PHYSICAL REVIEW LETTERS	8	9.185

36	CHEMSUSCHEM	1	9.14
37	EMBO REPORTS	2	9.071
38	THE ASTROPHYSICAL JOURNAL LETTERS	4	8.811
39	FRONTIERS IN IMMUNOLOGY	2	8.786
40	APPLIED MATERIALS TODAY	1	8.663
41	NANOSCALE	1	8.307
42	JOURNAL OF CELL BIOLOGY	1	8.077
43	JOURNAL OF MEDICINAL CHEMISTRY	2	8.039
44	ORGANIC CHEMISTRY FRONTIERS	1	7.779
45	ADVANCED ELECTRONIC MATERIALS	1	7.633
46	JOURNAL OF INVESTIGATIVE DERMATOLOGY	1	7.59
47	PLOS PATHOGENS	3	7.464
48	APPLIED SURFACE SCIENCE	1	7.392
49	BMC BIOLOGY	1	7.364
50	ELECTROCHIMICA ACTA	1	7.336
51	SOLAR ENERGY MATERIALS AND SOLAR CELLS	1	7.305
52	JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS	1	7.28
53	ATMOSPHERIC CHEMISTRY AND PHYSICS DISCUSSIONS	1	7.197
54	SOLAR ENERGY	1	7.188
55	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	1	7.139
56	ACS PHOTONICS	4	7.077
57	EXPERT OPINION ON DRUG DISCOVERY	1	7.05
58	PROTEIN SCIENCE	1	6.993
59	ACS APPLIED ENERGY MATERIALS	3	6.959
60	JOURNAL OF PHYSICAL CHEMISTRY LETTERS	1	6.888
61	DEVELOPMENT	1	6.862
62	PHARMACEUTICS	1	6.525
63	ADVANCED MATERIALS INTERFACES	2	6.389
64	ASTRONOMY & ASTROPHYSICS	12	6.24
65	CELL PRESS	1	6.233
66	JOURNAL OF MOLECULAR BIOLOGY	1	6.151
67	JOURNAL OF CELL SCIENCE	2	6.129
68	FRONTIERS IN CELL AND DEVELOPMENTAL BIOLOGY	1	6.081
69	ORGANIC LETTERS	5	6.072
70	BIOCONJUGATE CHEMISTRY	1	6.069
71	CHEMICAL COMMUNICATIONS	3	6.065
72	FRONTIERS IN MICROBIOLOGY	1	6.064
73	THE FEBS JOURNAL	3	5.85
74	FRONTIERS IN CARDIOVASCULAR MEDICINE	1	5.846
75	LIFE SCIENCE ALLIANCE	1	5.781
76	ACS CHEMICAL NEUROSCIENCE	1	5.78

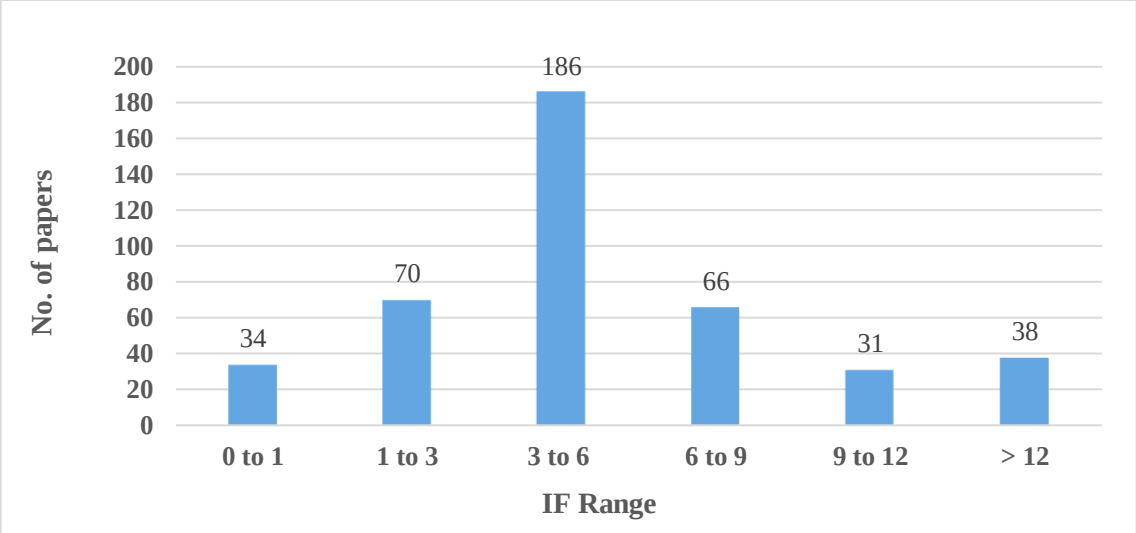
77	NANOMATERIALS	3	5.719
78	HEPATOLOGY COMMUNICATIONS	1	5.701
79	NANOSCALE ADVANCES	2	5.598
80	IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY*	1	5.59
81	ASTROPHYSICAL JOURNAL	6	5.521
82	SCIENTIFIC REPORTS	3	5.516
83	CHEMCATCHEM	2	5.497
84	JOURNAL OF BIOLOGICAL CHEMISTRY	1	5.486
85	ENVIRONMENTAL MICROBIOLOGY	1	5.476
86	INORGANIC CHEMISTRY	6	5.436
87	PHYSICAL REVIEW D	7	5.407
88	MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY	26	5.235
89	TOXINS	1	5.075
90	JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY	1	5.062
91	CHEMISTRY—A EUROPEAN JOURNAL	6	5.02
92	JOURNAL OF DRUG TARGETING	1	5.016
93	PLANT AND SOIL	1	4.993
94	PHYSICS LETTERS B	1	4.95
95	PHYSICAL REVIEW APPLIED	1	4.931
96	MOLECULES	1	4.927
97	SURFACE AND COATINGS TECHNOLOGY	1	4.865
98	CHEMISTRY-AN ASIAN JOURNAL	2	4.839
99	SPECTROCHIMICA ACTA	1	4.831
100	ANNALS OF OPERATIONS RESEARCH	1	4.82
101	PLOS COMPUTATIONAL BIOLOGY	2	4.779
102	BIOMEDICINES	1	4.757
103	CHEMICAL GEOLOGY	1	4.685
104	ENERGY & FUELS	1	4.654
105	BIOESSAYS	1	4.653
106	JOURNAL OF COMPUTATIONAL PHYSICS	1	4.645
107	DALTON TRANSACTION	3	4.569
108	DALTON TRANSACTIONS	2	4.569
109	ACS APPLIED ELECTRONIC MATERIALS	1	4.494
110	BMC MICROBIOLOGY	1	4.465
111	BIOCHEMICAL ENGINEERING JOURNAL	1	4.446
112	BIOCHIMIE	3	4.372
113	THE JOURNAL OF CHEMICAL PHYSICS	1	4.304
114	JOURNAL OF BIOMOLECULAR STRUCTURE AND DYNAMICS	1	4.297
115	JOURNAL OF FLUID MECHANICS	3	4.245
116	JOURNAL OF ORGANIC CHEMISTRY	2	4.198

117	ACS OMEGA	1	4.132
118	ADVANCED ENGINEERING MATERIALS	1	4.122
119	CONTRIBUTIONS TO MINERALOGY AND PETROLOGY	1	4.107
120	FRONTIERS IN ASTRONOMY AND SPACE SCIENCES	1	4.055
121	SOFT MATTER	3	4.046
122	TRANSFUSION MEDICINE AND HEMOTHERAPY	1	4.04
123	RSC ADVANCES	1	4.036
124	MOLECULAR MICROBIOLOGY	1	3.979
125	APPLIED PHYSICS LETTERS	1	3.971
126	PEDIATRIC RESEARCH	1	3.953
127	NANOTECHNOLOGY	1	3.953
128	NEW JOURNAL OF CHEMISTRY	1	3.925
129	PHYSICAL REVIEW B	10	3.902
130	JOURNAL OF PROTEOMICS	1	3.855
131	JOURNAL OF MOLECULAR STRUCTURE	2	3.841
132	ORGANOMETALLICS	2	3.837
133	CHEMNANOMAT	1	3.82
134	ENVIRONMENT AND PLANNING A: ECONOMY AND SPACE	1	3.79
135	AMINO ACIDS	1	3.789
136	HELIYON 5	1	3.776
137	CURRENT DRUG DELIVERY	1	3.758
138	PLOS ONE	2	3.752
139	MATERIALS	1	3.748
140	CHAOS	1	3.741
141	NEW JOURNAL OF PHYSICS	3	3.716
142	JOURNAL OF HIGH ENERGY PHYSICS (JHEP)	4	3.679
143	CHEMPHOTOCHEM	1	3.679
144	MOLECULAR BIOLOGY OF THE CELL	2	3.612
145	JOURNAL OF SOIL SCIENCE AND PLANT NUTRITION	1	3.61
146	INFECTION AND IMMUNITY	1	3.609
147	OPTICS LETTER	1	3.56
148	JOURNAL OF PHYSICS G: NUCLEAR AND PARTICLE PHYSICS	2	3.519
149	CATALYSIS COMMUNICATIONS	1	3.51
150	MOLECULAR PLANT-MICROBE INTERACTIONS	2	3.422
151	JOURNAL OF PHYSICS D-APPLIED PHYSICS	1	3.409
152	TRANSFUSION	1	3.337
153	JOURNAL OF THE GEOLOGICAL SOCIETY	1	3.288
154	EUROPEAN JOURNAL OF ORGANIC CHEMISTRY	5	3.261
155	LIFE	1	3.253
156	ESTUARINE COASTAL AND SHELF SCIENCE	1	3.229
157	CHEMPLUSCHEM	1	3.21

158	PHYSICAL REVIEW C	8	3.199
159	INORGANICS	1	3.149
160	EUROPEAN PHYSICAL JOURNAL A	1	3.131
161	ASIAN JOURNAL OF ORGANIC CHEMISTRY	1	3.116
162	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS	1	3.097
163	IMMUNOLOGICAL INVESTIGATION	1	3.044
164	MACROMOLECULAR CHEMISTRY AND PHYSICS	1	2.996
165	PHYSICAL REVIEW A	9	2.971
166	JOURNAL OF PHYSICAL CHEMISTRY A	1	2.944
167	PHYSICAL REVIEW FLUIDS	3	2.895
168	EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS	2	2.891
169	JOURNAL OF APPLIED PHYSICS	1	2.877
170	MINERALS	1	2.818
171	UNIVERSE	1	2.813
172	SOLID STATE NUCLEAR MAGNETIC RESONANCE	1	2.812
173	FEBS OPEN BIO	1	2.792
174	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	1	2.779
175	JOURNAL OF SOLID STATE ELECTROCHEMISTRY	1	2.747
176	JOURNAL OF PHYSICS: CONDENSED MATTER	1	2.745
177	JOURNAL OF MAGNETIC RESONANCE	1	2.734
178	INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY	1	2.731
179	PHYSICAL REVIEW E	6	2.707
180	JOURNAL OF MICROBIOLOGICAL METHODS	1	2.622
181	THE JOURNAL OF THE MINERALS, METALS & MATERIALS SOCIETY (TMS)	1	2.597
182	THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA	1	2.482
183	JOURNAL OF PEPTIDE SCIENCE	1	2.408
184	COMMUNICATIONS IN MATHEMATICAL PHYSICS	1	2.361
185	JOURNAL OF ORGANOMETALLIC CHEMISTRY	1	2.345
186	OPTICS COMMUNICATIONS	1	2.335
187	JOURNAL OF PHYSICS A: MATHEMATICAL AND THEORETICAL	3	2.331
188	PERFORMANCE EVALUATION	2	2.205
189	CHIRALITY	1	2.183
190	INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY	1	2.148
191	ROMANIAN REPORTS IN PHYSICS	1	2.085
192	JOURNAL OF THE OPTICS	2	2.077
193	ANNUAL REPORTS ON NMR SPECTROSCOPY	1	2.074
194	JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B	1	2.058
195	TETRAHEDRON LETTERS	1	2.032

196	CALPHAD	1	2.004
197	EPL	1	1.968
198	INTERNATIONAL JOURNAL OF MASS SPECTROMETRY	1	1.934
199	APPLIED OPTICS	1	1.905
200	JOURNAL OF STATISTICAL PHYSICS	2	1.762
201	AIP ADVANCES	1	1.697
202	CARBOHYDRATE CHEMISTRY	1	1.667
203	JOURNAL OF PHYSICS B: ATOMIC, MOLECULAR AND OPTICAL PHYSICS	1	1.655
204	PROCEEDINGS OF THE LONDON MATHEMATICAL SOCIETY*	1	1.649
205	FLUID DYNAMICS RESEARCH	1	1.5
206	JOURNAL OF MOLECULAR SPECTROSCOPY	1	1.451
207	EUROPEAN PHYSICAL JOURNAL B	1	1.398
208	IEEE TRANSACTIONS ON PLASMA SCIENCE*	1	1.368
209	JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY	1	1.354
210	PROCEEDINGS OF THE ROYAL SOCIETY OF EDINBURGH SECTION A-MATHEMATICS*	2	1.327
211	PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING	1	1.047
212	DISCRETE ANALYSIS	1	0.923
213	ARCHIVES OF BIOLOGICAL SCIENCES	1	0.856
214	JOURNAL OF NONCOMMUTATIVE GEOMETRY	1	0.768
215	INTEGRAL EQUATIONS AND OPERATOR THEORY	1	0.72
216	REGENERATIVE ENGINEERING AND TRANSLATIONAL MEDICINE	1	0
217	JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH	1	0
218	JOURNAL OF THE INDIAN SOCIETY OF SOIL SCIENCE	1	0
219	JOURNAL OF THEORETICAL AND APPLIED PHYSICS	2	0
220	APPLICATIONS OF TARGETED NANO DRUGS AND DELIVERY SYSTEMS	1	0
221	EUROPEAN CONFERENCE ON COMPUTER VISION*	1	0
222	JOINT MODELING OF FIRST AND THIRD-PERSON VIDEOS. CVPR*	2	0
223	BRITISH MACHINE VISION CONFERENCE*	1	0
224	IEEE CONFERENCE ON AUTOMATIC FACE AND GESTURE RECOGNITION*	1	0
225	PROCEEDINGS OF WIOPT, SHANGHAI*	1	0
226	BIOINFORMATION	1	0
227	SOURCE CODE FOR BIOLOGY AND MEDICINE	1	0
228	DATA IN BRIEF	1	0
229	PNAS	1	0
230	METHODS FOR ELECTROCATALYSIS*	1	0

231	GDI WORKING PAPER*	1	0
232	PROCEEDINGS OF THE ROYAL SOCIETY A*	1	0
233	PHYSICAL REVIEW RESEARCH	3	0
234	TRANSACTIONS OF THE INDIAN NATIONAL ACADEMY OF ENGINEERING	1	0
235	JOURNAL OF PHYSICS: PHOTONICS	1	0
236	ACTA CRYSTALLOGRAPHICA SECTION E-CRYSTALLOGRAPHIC COMMUNICATIONS	1	0
237	JOURNAL OF PHYSICS: CONFERENCE SERIES*	1	0
238	IEEE INTERNATIONAL CONFERENCE ON EMERGING ELECTRONICS (ICEE)*	1	0
239	FLUIDS	1	0
240	PROCEEDINGS OF THE DAE SYMPOSIUM ON NUCLEAR PHYSICS*	1	0
241	2022 16TH EUROPEAN CONFERENCE ON ANTENNAS AND PROPAGATION (EUCAP)*	1	0



Annexure 4

CEFIPRA Projects based on number of papers			
S. No.	**Project no.**	**Project Title**	**No. of publications**
1	5904-1	Modelling and observing pulsars: from high energy to radio emission.	36
2	5905-1	Boron-controlled CO2 reduction	23
3	5203-2	Insights on protein structural and evolutionary dynamics	15
4	5505-2	Chiral Phosphahelicenes in Gold(I) Enantioselective Catalysis	13
5	6104-1	Turbulent flows in equilibrium	11
6	5504-3	Electrical addressing and control of the plasmonic properties of coupled metal nanowire	10
7	5504-2	Cosmological evolution of the cold gas from quasar absorption lines	10
8	5604-2	Extreme events and large deviations in strongly correlated many body systems	9
9	5805-1	Novel Chiral First row Transition Complexes for Asymmetric Catalysis via Activation of inert C-H and C-Heteroatom bonds	8
10	6003-1	Membrane Biogenesis in Apicomplexa parasites: Trafficking and recycling lipid sources for membrane remodelling as drug targets against malaria and toxoplasmosis	8
11	5104-2	SELF-SIMILAR OPTICAL PATTERNS IN NONLINEAR MEDIA	7
12	5404-2	Glimpses of New Physics	7
13	5604-1	Modeling Soft Glassy Flow from Micro to Macro Scale	7
14	5908-2	2D Materials for novel nano electronic device applications	7
15	6101-1	Maximal abelian subalgebras in operator algebras	7
16	5403-1	Pathogenic Aspergillus: Interaction with innate immune cells	6
17	5604-4	Nuclear structure at the extreme of isospin and spin.	6

18	5108-1	Synthesis of Photocatalytic Porous Silicon-Containing Nitride and Oxynitride Nanocomposites	6
19	5302-1	Large-Scale Loss-based Learning via Energy Minimization	6
20	5804-3	Phase transitions in sub-saturation nuclear matter and applications to core-collapse supernova and nuclear experiments	6
21	6004-1	Design and Control of many-body states in hybrid quantum systems	6
22	5803-1	Mechanism of polarity reversals in Myxococcus xanthus	6
23	6008-1	Nanowire white LEDs based on innovative nano-phosphors	6
24	6104-2	Optoelectronics in van der Waals heterostructures: from fundamentals to quantum device engineering	6
25	5203-5	Characterisation of factors that determine the balance between genomic integrity and diversity in Helicobacter pylori	5
26	5409-1	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	5
27	5404-1	LORIC: LOng-Range Interactions in ultraCold gases	5
28	5505-1	N-Heterocyclic Carbene (NHC)-Organocatalyzed Enantioselective Trifluoromethylation and Trifluoromethylthiolation of Unactivated C-H Bonds	5
29	5208-2	Novel nanocatalysts synthesis guided by DNP NMR	5
30	5908-1	A novel high temperature selective coating on superalloy substrates stable up to 600 deg. C in air for solar thermal electricity receivers: Studies on improved efficiency and accelerated aging tests	5
31	5904-3	Pre-evolutionary processes in autocatalytic RNA networks	5
32	62T10-3	Fluorescent-amyloid-beta peptides to study interaction with copper, aggregation and reactive oxygen species	5

33	4803-4	Novel nanotechnological approaches for treatment of lishmaniasis using 2 propylquinoline	4
34	5303-2	Original biocompatible phosphorus dendrimers as a new strategy to tackle pulmonary tuberculosis	4
35	5004-1	Advanced Computational Models to Facilitate Solar Activity and Space Weather Predictions	4
36	5104-1	Magnetic nanoparticles for hyperthermia and spintronics	4
37	5702-1	The Economics of Networks and Queues	4
38	5703-1	Control of microtubule dynamic instability by the tubulin code	4
39	5308-1	Magnetism of self-organized structures at surfaces	4
40	5305-1	Axially chiral biaryls from C-H activation & radicals	4
41	5903-1	Hematopoiesis and metabolism	4
42	4903-1	Control of melanosome biogenesis by small GTPases	3
43	5103-1	The Immuno-Psychiatry in South India Study (IPS): Immunogenetic and Immuno-phenotype Characterization of Major Psychoses	3
44	5109-1	Survey of soil-Si pools and contribution of Si fertilization in a sustainable rice cultivation in South India	3
45	5204-3	MODELLING PLASMA INSTABILITIES AND TRANSPORT IN A HALL THRUSTER	3
46	5405-1	H2 evolution: cheap catalysts for noble task	3
47	5304-1	Theoretical studies on ultra-cold Dipolar Gases	3
48	5304-3	Quantum transport in 2D van der Waals heterostructures based on graphene and Boron Nitride	3
49	5804-1	The assembly history of disk galaxies over the last 8 billion years	3
50	5804-2	Micro-SQUID magnetometry of nano-scale magnetic structures	3
51	6303-2	Understanding the mechanism of crack-entry adapted root nodule symbiosis	3

52	6005-2	From molecules to aerosols and dust particles: applications to the physics and chemistry of planetary atmospheres and the interstellar medium	3
53	6304-2	Beyond Standard Model Physics with Neutrino and Dark Matter at Energy, Intensity and Cosmic Frontiers	3
54	6005-1	Enhanced CO2 adsorption and its photo-electrochemical conversion using semiconductor-metal complex hybrids	3
55	4803-1	Molecular mechanisms of immune evasion by M. Tuberculosis	2
56	5203-1	Molecular study of RH gene variants in Indians	2
57	5203-4	Novel inhibitors of NHEJ against resistant tumour cells	2
58	4601-1	Discontinuous Galerkin method for Nonlinear acoustics	2
59	4704-1	Two dimensional electron gas physics in oxide heterostructures	2
60	4704-2	Correlations and transport far from equilibrium in nanosystems	2
61	5204-1	Monomode and multimode phase sensitive amplification and light storage	2
62	4805-1	Supra molecular approach to composite materials for advanced technologies	2
63	5208-1	Plasticity of covalent nanoparticles	2
64	5608-1	Biodegradable core shell electrospun mats and interconnected porous scaffolds for tunable anticancer drug delivery and tissue engineering application	2
65	5103-2	Olfactory Modulation of Insect Flight	2
66	5703-2	A genome-wide study to identify novel regulators of chromosome stability using a human pathogenic yeast Candida albicans as the model system	2
67	5307-1	Advanced time-domain integration schemes for the simulation of Earth and planetary core dynamics	2
68	5607-1	Impact of the Indian Monsoon convection on the Tropical Tropopause Layer abnd climate	2

69	5605-1	Metal chelators derived from imidazole thiones and selones for detoxification	2
70	Group Farming & Collective Action	Does the French model hold lessons for Indian and French farming futures?	2
71	5503-2	Molecular analysis of a capacitor Hox protein motif	2
72	5708-1	DURABLE FUEL CELLS BASED ON POLYMER COATED NANOCARBON COMPOSITES (DUPONT)	2
73	62T9-1	Q-Walker: programmable quantum dynamics simulator	2
74	6304-3	Novel Non-Perturbative Approaches to Strongly Coupled QCD Matter	2
75	6304-4	Pairing in neutron-star matter with renormalization-group based low-momentum interactions	2
76	5808-1	Tuning the interfacial Dzyaloshinskii-Moriya interaction in ultrathin magnetic films: toward the stabilization of skyrmions in spintronics devices	2
77	5907-1	Nutrient transfers through groundwater in India (NUNDERGROUND)	2
78	64T3-1	Numerical Investigations of Quantum Spin Liquids in SU(N) Antiferromagnetic models	2
79	4603-1	Genome wide recruitment profiling of BLM after DNA damage	1
80	4803-3	Mechanisms of Lysine acetyltransferase (KAT/HAT) activation by small molecule activators and use thereof in memory	1
81	4903-2	Study of neural development in hiPS models of microcephaly	1
82	4903-3	Transcriptomics and metabolomics in patients with steroid Non-responsive servere alcoholic hepatitis	1
83	5103-4	Decipher the symbiotic program in tropical legumes	1
84	5603-1	Functional genomics of glioblastoma: from epigenetics to proteomic investigation of tumor initiating cell secretome	1

85	5300-B1	A comparative Systems Biology Approach for Understanding Desiccation Tolerance in Forage Grasses and Selaginella sps.	1
86	4709-1	Gene resources from polluted soils	1
87	Network-1 AHUS	International Study on a Typical Hemolytic Uremic Syndrome	1
88	4704-3	Rotating and curved boundary-layer instabilities	1
89	4904-2	Studies of spin ladder and heavy fermion systems in extremen conditions of hydrostatic or uniaxial pressure and low temperature	1
90	5504-1	Wavelet Graphs for Gravitational Wave Searches	1
91	5005-1	Influence of the Resorcin[4]arene on the Catalytic Outcomes	1
92	5005-2	Design and synthesis of new C1- symmetric biaryl-based ligands and catalysts and their evaluation in asymmetric catalytic reactions	1
93	4808-1	High anisotropy molecular magnets: Synthesis & Modelling	1
94	5408-1	Understanding mechanical size effects in metallic micro-wires: synergy between experiments and simulation	1
95	5604-3	Interplay between MgO oxygen vacancies and tunnelling spin transfer torque	1
96	5503-1	Elucidation of conserved molecular signatures and regulators for blood cell progenitor maintenance	1
97	5803-2	Directing the ballet of Meiotic chromosomes: regulation of Separase and control of MOnopolar KInetochore orientation -SMOKI	1
98	5007-1	Cenozoic denudation of South India	1
99	6103-1	How mechanical conflicts contribute to organ shape reproducibility in plants	1
100	6103-2	The genomic and evolutionary landscape of azole resistance in budding yeast	1
101	6203-1	Exploring the role of DNAse1L3in obesity-associated metaflammation and type 2 diabetes	1
102	6305-1	Discovery and understanding of new glycosylation methods	1
103	6102-1	Integrating Machine Learning With Feature Selection To Build Interpretable Models For Precision Oncology	1

104	62T5-1	Understanding mechanobiological basis of the evolutionary diversity in spindles dynamics of nematodes	1
105	6007-1	Petrologic, Os isotopic and platinum-group element (PGE) geochemical studies of the Archean komatiites from the Singhbhum craton (eastern India): implications for chemical differentiation of the Earth and prospects for Ni-Cu-(PGE) sulfide mineralization	1
106	6109-1	Chromium isotopes as tracers of environmental contamination and remediation	1
107	6303-3	Profiling of gut microbiota and its metabolites during endocrine-disrupting chemical induced-glucose dyshomeostasis: Implications on host glucose metabolism	1
108	5902-1	NOVIS60: Non-contact vital sign estimation with 60 GHz radar technology	1

Annexure 5

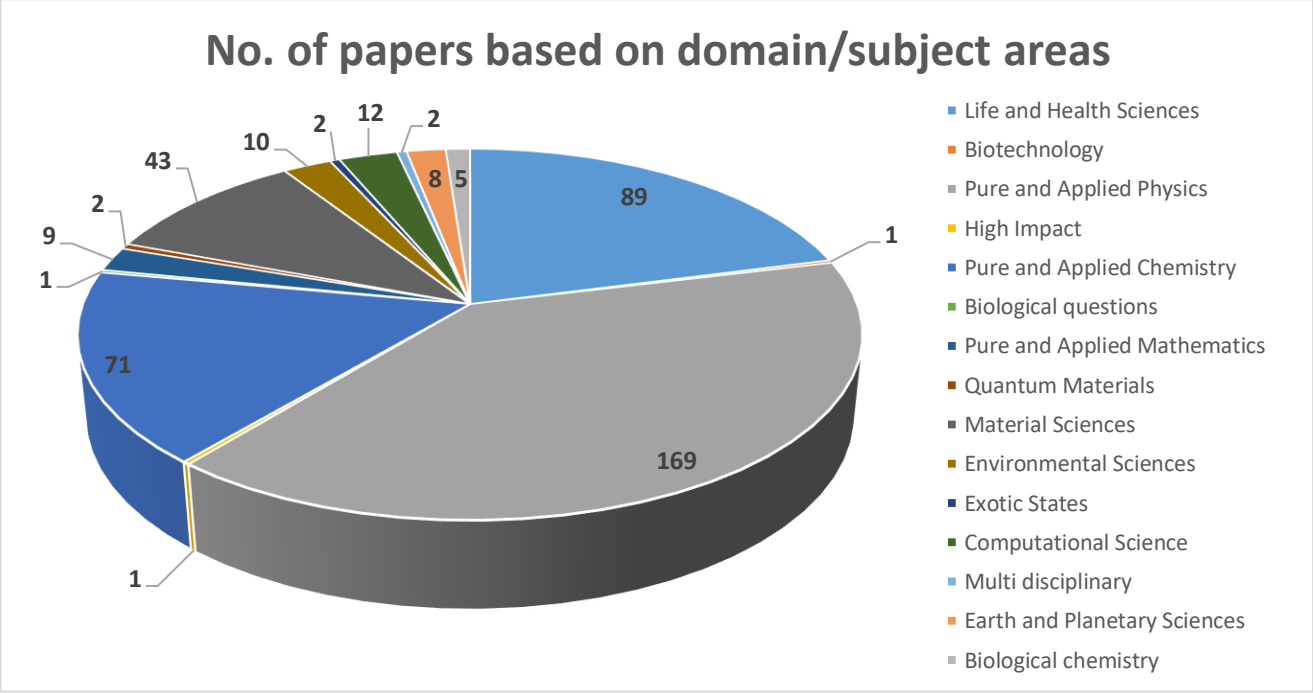
CEFIPRA Projects based on Average Impact Factor				
S. No.	**Project no.**	**No. of publications**	**Sum IF**	**Avg IF**
1	5203-4	2	75.354	37.677
2	5503-1	1	25.476	25.476
3	4803-1	2	37.410	18.705
4	5405-1	3	54.514	18.171
5	5703-1	4	71.074	17.769
6	4603-1	1	17.763	17.763
7	6103-2	1	17.694	17.694
8	4803-3	1	14.400	14.400
9	5607-1	2	28.728	14.364
10	6005-1	3	36.823	12.274
11	5604-1	7	82.391	11.770
12	6103-1	1	10.900	10.900
13	4704-1	2	21.671	10.836
14	5300-B1	1	10.723	10.723
15	5203-5	5	50.990	10.198
16	4805-1	2	19.722	9.861
17	4903-2	1	9.685	9.685
18	6003-1	8	74.749	9.344
19	5208-1	2	18.418	9.209
20	5904-3	5	46.024	9.205
21	4904-2	1	9.185	9.185
22	5903-1	4	36.026	9.007
23	5805-1	8	71.285	8.911
24	6203-1	1	8.786	8.786
25	5804-1	3	26.117	8.706
26	5708-1	2	16.924	8.462
27	5308-1	4	33.382	8.346
28	5004-1	4	32.860	8.215
29	5103-2	2	16.416	8.208
30	5605-1	2	15.819	7.910
31	5703-2	2	15.800	7.900
32	5505-2	13	102.609	7.893
33	4903-1	3	22.790	7.597
34	5908-1	5	35.803	7.161
35	5905-1	23	164.622	7.157
36	5504-3	10	70.747	7.075
37	5803-1	6	41.942	6.990

38	5504-2	10	65.202	6.520
39	6304-3	2	11.786	5.893
40	5404-2	7	41.209	5.887
41	6303-3	1	5.846	5.846
42	6304-2	3	17.193	5.731
43	5904-1	36	205.378	5.705
44	4903-3	1	5.701	5.701
45	62T10-3	5	27.890	5.578
46	5104-2	7	38.716	5.531
47	5103-4	1	5.516	5.516
48	5408-1	1	5.516	5.516
49	4704-2	2	10.882	5.441
50	5504-1	1	5.407	5.407
51	5505-1	5	26.497	5.299
52	6104-2	6	31.767	5.295
53	6008-1	6	30.389	5.065
54	5303-2	4	20.213	5.053
55	6102-1	1	4.757	4.757
56	5603-1	1	4.653	4.653
57	5108-1	6	27.366	4.561
58	5304-3	3	13.408	4.469
59	5403-1	6	26.071	4.345
60	5804-2	3	12.735	4.245
61	5005-2	1	4.198	4.198
62	5203-2	15	61.861	4.124
63	6007-1	1	4.107	4.107
64	6303-2	3	12.320	4.107
65	5907-1	2	7.914	3.957
66	Network-1 AHUS	1	3.953	3.953
67	4808-1	1	3.908	3.908
68	5104-1	4	14.949	3.737
69	5503-2	2	7.383	3.692
70	5203-1	2	7.377	3.689
71	5204-1	2	7.276	3.638
72	62T5-1	1	3.612	3.612
73	5307-1	2	7.140	3.570
74	4601-1	2	7.127	3.564
75	5005-1	1	3.510	3.510
76	5604-3	1	3.409	3.409
77	62T9-1	2	6.687	3.344
78	5908-2	7	23.307	3.330

79	5604-2	9	29.784	3.309
80	5804-3	6	19.766	3.294
81	5007-1	1	3.288	3.288
82	5808-1	2	6.550	3.275
83	5208-2	5	15.744	3.149
84	6104-1	11	34.212	3.110
85	5305-1	4	11.815	2.954
86	6304-4	2	5.862	2.931
87	5109-1	3	8.603	2.868
88	6004-1	6	17.180	2.863
89	6005-2	3	8.236	2.745
90	5604-4	6	15.995	2.666
91	4709-1	1	2.622	2.622
92	4803-4	4	10.174	2.544
93	5304-1	3	7.597	2.532
94	5404-1	5	11.884	2.377
95	5702-1	4	9.230	2.308
96	5103-1	3	6.820	2.273
97	5409-1	5	11.042	2.208
98	64T3-1	2	3.902	1.951
99	6109-1	1	1.934	1.934
100	Group Farming & Collective Action	2	3.790	1.895
101	6305-1	1	1.667	1.667
102	4704-3	1	1.500	1.500
103	5608-1	2	2.996	1.498
104	6101-1	7	9.075	1.296
105	5302-1	6	5.859	0.977
106	5204-3	3	1.368	0.456
107	5803-2	1	0.000	0.000
108	5902-1	1	0.000	0.000

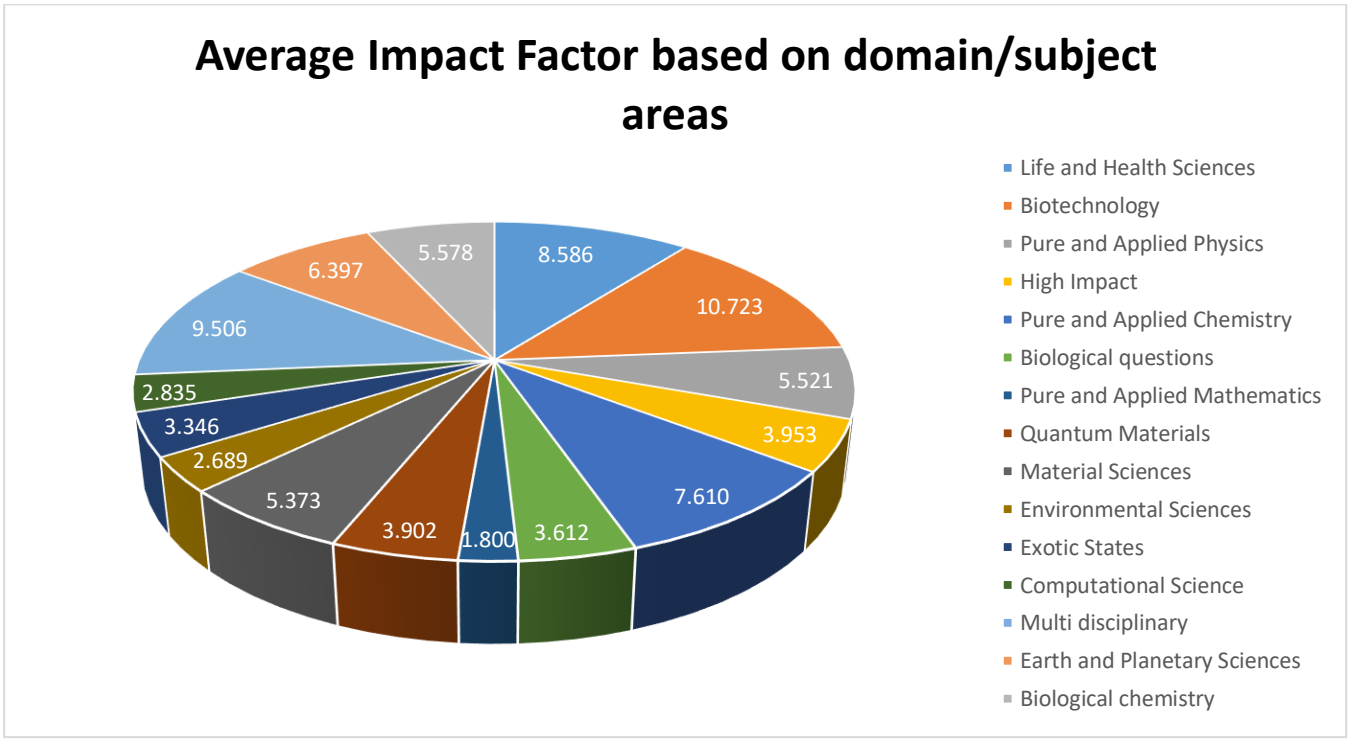
Annexure 6

No. of papers based on domain			
S. No.	**Domain**	**No. of Papers**	**No. of Projects**
1	Life and Health Sciences	89	30
2	Biotechnology	1	1
3	Pure and Applied Physics	169	31
4	High Impact	1	1
5	Pure and Applied Chemistry	71	14
6	Biological questions	1	1
7	Pure and Applied Mathematics	9	2
8	Quantum Materials	2	1
9	Material Sciences	43	12
10	Environmental Sciences	10	4
11	Exotic States	2	1
12	Computational Science	12	4
13	Multi-disciplinary	2	0
14	Earth and Planetary Sciences	8	5
15	Biological chemistry	5	1
	Total	**425**	**108**



Annexure 7

Average Impact Factor based on domain/subject areas				
S. No.	**Domain**	**No. of Papers**	**No. of Projects**	**Avg. IF**
1	Life and Health Sciences	89	30	8.586
2	Biotechnology	1	1	10.723
3	Pure and Applied Physics	169	31	5.521
4	High Impact	1	1	3.953
5	Pure and Applied Chemistry	71	14	7.610
6	Biological questions	1	1	3.612
7	Pure and Applied Mathematics	9	2	1.800
8	Quantum Materials	2	1	3.902
9	Material Sciences	43	12	5.373
10	Environmental Sciences	10	4	2.689
11	Exotic States	2	1	3.346
12	Computational Science	12	4	2.835
13	Multi-disciplinary	2	0	9.506
14	Earth and Planetary Sciences	8	5	6.397
15	Biological chemistry	5	1	5.578



Annexure 8

Top papers with 40 or more citations				
S. No.	**Project code**	**Papers**	**Citations**	**Impact Factor of 2022**
1	5302-1	End-to-End Incremental Learning *Francisco Castro, Manuel Marín-Jiménez, Nicolás Guil, Cordelia Schmid, Karteek Alahari* EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV 2018), SEP 2018, MUNICH, GERMANY. 2018, <HAL-01849366>ECCV2018	714	0
2	5604-1	Deformation and flow of amorphous solids: Insights from elastoplastic models *Alexandre Nicolas, Ezequiel E. Ferrero, Kirsten Martens and Jean Louis Barrat* REVIEWS OF MODERN PHYSICS, VOLUME 90, October–December 2018, DOI: 10.1103/REVMODPHYS.90.045006	261	50.485
3	5104-2	Optical soliton molecular complexes in a passively mode-locked fibre laser *Z.Q. Wang, K. Nithyanandan, A. Coillet, P. Tchofo-Dinda, Ph. Grelu* NATURE COMMUNICATIONS (2019) 10:830 HTTPS://DOI.ORG/10.1038/S41467-019-08755-4	163	17.763
4	5302-1	Actor and Observer: Joint Modeling of First and Third-Person Videos *Gunnar Sigurdsson, Abhinav Gupta, Cordelia Schmid, Ali Farhadi, Karteek Alahari* JOINT MODELING OF FIRST AND THIRD-PERSON VIDEOS. CVPR 2018 -IEEE CONFERENCE ON COMPUTER VISION < HAL 01755547>	96	0
5	5108-1	Polymer Derived Si–B–C–N Ceramics: 30 Years of Research *Antoine Viard, Diane Fonblanc, David LopezĞFerber, Marion Schmidt, Abhijeet Lale, Charlotte Durif, Maxime Balestrat, Fabrice Rossignol, Markus Weinmann, Ralf Riedel and Samuel Bernard* ADVANCED ENGINEERING MATERIALS, 20, 2018, 1800360; DOI: 10.1002/ADEM.201800360	84	4.122
6	5203-2	Halogens in Protein−Ligand Binding Mechanism: A Structural Perspective *Nicolas K. Shinada, Alexandre G. de Brevern, Peter Schmidtke* J. MED. CHEM. (2019) 62: 9341−9356 DOI: 10.1021/ACS.JMEDCHEM.8B01453	81	8.039
7	5004-1	Prediction of the Strength and Timing of Sunspot Cycle 25 Reveal Decadal-scale Space Environmental Conditions *P. Bhowmik and D. Nandy* NATURE COMMUNICATIONS, 9, 5209, 2018 (DOI: 10.1038/S41467-018-07690-0)	77	17.763

8	5604-2	Active Brownian motion in two dimensions *Urna Basu, Satya N. Majumdar, Alberto Rosso and Grégory Schehr* PHYSICAL REVIEW E 98, 062121 (2018)	74	2.707
9	5607-1	Ammonium nitrate particles formed in upper troposphere from ground ammonia sources during Asian monsoons *Michael Höpfner, Jörn Ungermann , Stephan Borrmann, Robert Wagner, Reinhold Spang, Martin Riese, Gabriele Stiller, Oliver Appel, Anneke M. Batenburg, Silvia Bucci, Francesco Cairo, Antonis Dragoneas, Felix Friedl-Vallon, Andreas Hünig, Sören Johansson, Lukas Krasauskas, Bernard Legras, Thomas Leisner, Christoph Mahnke, Ottmar Möhler, Sergej Molleker, Rolf Müller, Tom Neubert, Johannes Orphal, Peter Preusse, Markus Rex, Harald Saathoff, Fred Stroh, Ralf Weigel, Ingo Wohltmann* NATURE GEOSCIENCE HTTPS://DOI.ORG/10.1038/S41561-019-0385-8	73	21.531
10	5903-1	Temporal specificity and heterogeneity of Drosophila immune cells *P.B. Cattenoz, R. Sakr, A. Pavlidaki, C. Delaporte, A. Riba, N. Molina, N. Hariharan, T. Mukherjee, A. Giangrande* EMBO J. 39 (2020) 1–25 https://doi.org/10.15252/embj.2020104486	66	14.012
11	5404-2	Freezing-in dark matter through a heavy invisible Z *G. Bhattacharyya, M. Dutra, Y. Mambrini and M. Pierre* PHYS. REV. D 98 (2018) 035038 DOI: 10.1103/PhysRevD.98.035038	61	5.407
12	5203-4	XLF and APLF bind Ku80 at two remote sites to ensure DNA repair by non-homologous end joining *Clement Nemoz, Virginie Ropars, Philippe Frit, Amandine Gontier, Pascal Dreve, Jinchao Yu, Raphaël Guerois, Aurelien Pitois, Audrey Comte, Christine Delteil, Nadia Barboule, Pierre Legrand, Sonia Baconnais, Yandong Yin, Satish Tadi, Emeline Barbet Massin, Imre Berger, Eric Le Cam, Mauro Modesti, Eli Rothenberg, Patrick Calsou and Jean Baptiste Charbonnier* NATURE STRUCTURAL & MOLECULAR BIOLOGY VOL 25 OCTOBER 2018 PAGES 971-980, WWW.NATURE.COM/NSMB	60	69.504
13	5203-5	N4-cytosine DNA methylation regulates transcription and pathogenesis in Helicobacter pylori. *S Kumar, BC Karmakar, D Nagarajan, AK Mukhopadhyay, RD Morgan, DN. Rao* NUCLEIC ACIDS RESEARCH, 2018, VOL. 46 (7) 3429–3445 DOI: 10.1093/NAR/GKY126	56	19.16
14	5505-2	Umpolung Reactivity of Ynamides: An Unconventional [1,3]-Sulfonyl and [1,5]-Sulfinyl Migration Cascade *Akhila Kumar Sahoo, B. Prabagar, Rajendra Kumar Mallick, Rangu Prasad and Vincent Gandon* ANGEW. CHEM. INT. ED. 10.1002/ANIE.201813143	56	16.823

15	5505-2	Alkyne Versus Ynamide Reactivity: RegioselectiveRadical Cyclization of Yne-Ynamides *Shubham Dutta, Rajendra K. Mallick, Rangu Prasad, Vincent Gandon, Akhila K. Sahoo* ANGEW. CHEM. INT. ED. (2019) 58: 2289 –2294 HTTPS://DOI.ORG/10.1002/ANIE.201811947	55	16.823
16	5505-2	Alkyne Reactivity Preferred over Ynamide: Regioselective Radical Cyclization of Yne-Ynamides *Akhila Kumar Sahoo, Shubham Dutta, Rajendra K. Mallick, Rangu Prasad, and Vincent Gandon* ANGEW. CHEM. INT. ED. 10.1002/ANIE.201811947	54	16.823
17	5604-2	Light-Cone Spreading of Perturbations and the Butterfly Effect in a Classical Spin Chain *Avijit Das, Saurish Chakrabarty, Abhishek Dhar, Anupam Kundu, David A. Huse, Roderich Moessner, Samriddhi Sankar Ray, and Subhro Bhattacharjee* PHYSICAL REVIEW LETTERS 121, 024101 (2018)	53	9.185
18	4603-1	MRN complex-dependent recruitment of ubiquitylated BLM helicase to DSBs negatively regulates DNA repair pathways *Vivek Tripathi, Himanshi Agarwal, Swati Priya, Harish Batra, Priyanka Modi, Monica Pandey, Dhurjhoti Saha, Sathees C. Raghavan and Sagar Sengupta* NATURE COMMUNICATIONS DOI: 10.1038/s41467-018-03393-8	52	17.763
19	4803-3	Reinstating plasticity and memory in a tauopathy mouse model with an acetyltransferase activator *Snehajyoti Chatterjee, Raphaelle Cassel, Anne Schneider-Anthony, Karine Merienne, Brigitte, Cosquer, Laura Tzeplaeff, Sarmistha Halder Sinha, Manoj Kumar , Piyush Chaturbedy, Muthusamy Eswaramoorthy, Stéphanie Le Gras, Céline Keime, Olivier Bousiges, Patrick Dutar, Petnoi Petsophnsakul, Claire Rampon, Jean-Christophe Casse, Luc Buée, David Blum, Tapas K Kundu and Anne-Laurence Boutillier* EMBO MOLECULAR MEDICINE e8587 |2018 DOI 10.15252/emmm.201708587	50	14.4
20	5104-2	Peregrine Solitons Beyond the Threefold Limit and Their Two-Soliton Interactions *Shihua Chen, Yanlin Ye, Jose M. Soto-Crespo, Philippe Grelu, and Fabio Baronio* PHYSICAL REVIEW LETTERS 121, 104101 (2018)	50	9.185
21	5904-3	Universal motifs and the diversity of autocatalytic systems *A. Blokhuis, D. Lacoste, P. Nghe* Proc. Natl. Acad. Sci. U.S.A. 117 (2020) 25230–25236 https://doi.org/10.1073/pnas.2013527117	47	12.779

22	5109-1	pH as a proxy for estimating plant-available Si? A case study in rice fields in Karnataka (South India) *J D Meunier, K Sandhya, NB Prakash, D. Borschneck, and P. Dussouillez, P.,* PLANT AND SOIL 432(1-2), 143-155 HTTPS://DOI.ORG/10.1007/S11104-018-3758-7	46	4.993
23	5108-1	Polymer-Derived Ceramics with engineered mesoporosity: From design to application in catalysis *Abhijeet Lale, Marion Schmidt, Maíra Debarba Mallmann, André Vinícius Andrade Bezerra, Emanoelle Diz Acosta, Ricardo Antonio Francisco Machado, Umit B.Demirci and Samuel Bernard* SURFACE AND COATINGS TECHNOLOGY, 350, 2018, 569-58	46	4.865
24	5505-1	Enantioselective N-Heterocyclic Carbene-Catalyzed Cascade Reaction for the Synthesis of Pyrroloquinolines via N−H Functionalization of Indoles *Subrata Mukherjee, Sayan Shee, Thomas Poisson, Tatiana Besset and Akkattu T. Biju* ORG. LETT. 2018, 20, 6998−7002	45	6.072
25	6104-1	COVID-19 Pandemic: Power Law Spread and Flattening of the Curve *M.K. Verma, A. Asad, S. Chatterjee* Trans. Indian Natl. Acad. Eng. 5 (2020) 103–108 https://doi.org/10.1007/s41403-020-00104-y	45	0
26	5505-1	Synthesis of 4-Difluoromethylquinolines by NHC-Catalyzed Umpolung of Imines *Atanu Patra, Fabien Gelat, Xavier Pannecoucke, Thomas Poisson, Tatiana Besset and Akkattu T. Biju* ORG. LETT. 2018, 20, 1086−1089	44	6.072
27	5404-2	Moduli Portal Dark Matter *D. Chowdhury, E. Dudas, M. Dutra, Y. Mambrini* PHYS. REV. D 99 (2019) NO.9: 095028 [ARXIV: 1811.01947 [HEP-PH]	44	5.407
28	5604-2	Steady state of an active Brownian particle in a two-dimensional harmonic trap K. *Malakar, A. Das, A. Kundu, K.V. Kumar, A. Dhar* Phys. Rev. E. 101 (2020) 1–10 https://doi.org/10.1103/PhysRevE.101.022610	44	2.707
29	5805-1	Cp*Co(III)-catalyzed N-alkylation of amines with secondary alcohols *Balakumar Emayavaramban, Priyanka Chakraborty, Eric Manoury, Rinaldo Poli, Basker Sundararaju* ORG. CHEM. FRONT., (2019) 6: 852–857 DOI: 10.1039/C8QO01389F	43	7.779

30	5504-2	Spotting high-z molecular absorbers using neutral carbon, Results from a complete spectroscopic survey with the VLT? *P. Noterdaeme, C. Ledoux, S. Zou, P. Petitjean, R. Srianand, S. Balashev, S. López* ASTRONOMY & ASTROPHYSICS (2018) 612: A58 HTTPS://DOI.ORG/10.1051/0004-6361/201732266	42	6.24
31	5405-1	Tuning Reactivity of Bioinspired [NiFe]-Hydrogenase Models by Ligand Design and Modeling the CO Inhibition Process *Deborah Brazzolotto, Lianke Wang, Hao Tang, Marcello Gennari, Nicolas Queyriaux, Christian Philouze, Serhiy Demeshko, Franc Meyer, Maylis Orio,Vincent Artero, Michael B. Hall and C* ACS CATAL. 2018, 8, 10658−10667	41	13.7
32	5108-1	Boron Nitride for Hydrogen Storage *Abhijeet Lale, Samuel Bernard and Umit B. Demirci* CHEMPLUSCHEM, 83, 2018, 893–903	41	3.21
33	5805-1	a-Alkylation of Ketones with Secondary Alcohols Catalyzed by Well-Defined Cp*CoIII-Complexes *Priyanka Chakraborty, Manoj Kumar Gangwar, Balakumar Emayavaramban, Eric Manoury, Rinaldo Poli, Basker Sundararaju* CHEMSUSCHEM (2019) 12: 1 – 6 HTTPS://DOI.ORG/10.1002/CSSC.201900990	40	9.14

Annexure 9

Top 5 Institutions		
France		
S. No.	**Institutions**	**Papers**
1.	Centre National De La Recherche Scientifique (CNRS)	82
2.	Université de Strasbourg	36
3.	Sorbonne Université	17
4.	Université de Paris	15
5.	Ecole Normale Superieure	15
India		
1.	Indian Institute of Technology (IITs)	86
2.	Tata Institute of Fundamental Research(TIRF)	64
3.	Indian Institute of Science (IISc)	48
4.	Indian Institute of Science Education and Research (IISER)	27
5.	COUNCIL OF Scientific Industrial Research (CSIR)	26

Annexure 10

CEFIPRA Project Details			
S. No.	**Project no.**	**Project Title**	**Domain**
1	4601-1	Discontinuous Galerkin method for Nonlinear acoustics	Pure & Applied Mathematics
2	4603-1	Genome wide recruitment profiling of BLM after DNA damage	Life & Health Sciences
3	4704-1	Two dimensional electron gas physics in oxide heterostructures	Pure & Applied Physics
4	4704-2	Correlations and transport far from equilibrium in nanosystems	Pure & Applied Physics
5	4704-3	Rotating and curved boundary-layer instabilities	Pure & Applied Physics
6	4709-1	Gene resources from polluted soils	Environmental Science
7	4803-1	Molecular mechanisms of immune evasion by M. Tuberculosis	Life & Health Sciences
8	4803-3	Mechanisms of Lysine acetyltransferase (KAT/HAT) activation by small molecule activators and use thereof in memory	Life & Health Sciences
9	4803-4	Novel nanotechnological approaches for treatment of lishmaniasis using 2 propylquinoline	Life & Health Sciences
10	4805-1	Supra molecular approach to composite materials for advanced technologies	Pure & Applied Chemistry
11	4808-1	High anisotropy molecular magnets: Synthesis & Modelling	Material Sciences
12	4903-1	Control of melanosome biogenesis by small GTPases	Life & Health Sciences
13	4903-2	Study of neural development in hiPS models of microcephaly	Life & Health Sciences
14	4903-3	Transcriptomics and metabolomics in patients with steroid Non-responsive servere alcoholic hepatitis	Life & Health Sciences
15	4904-2	Studies of spin ladder and heavy fermion systems in extremen conditions of hydrostatic or uniaxial pressure and low temperature	Pure & Applied Physics
16	5004-1	Advanced Computational Models to Facilitate Solar Activity and Space Weather Predictions	Pure & Applied Physics
17	5005-1	Influence of the Resorcin[4]arene on the Catalytic Outcomes	Pure & Applied Chemistry

18	5005-2	Design and synthesis of new C1- symmetric biaryl-based ligands and catalysts and their evaluation in asymmetric catalytic reactions	Pure & Applied Chemistry
19	5007-1	Cenozoic denudation of South India	Earth & Planetary Sciences
20	5103-1	The Immuno-Psychiatry in South India Study (IPS): Immunogenetic and Immuno-phenotype Characterization of Major Psychoses	Life & Health Sciences
21	5103-2	Olfactory Modulation of Insect Flight	Life & Health Sciences
22	5103-4	Decipher the symbiotic program in tropical legumes	Life & Health Sciences
23	5104-1	Magnetic nanoparticles for hyperthermia and spintronics	Pure & Applied Physics
24	5104-2	SELF-SIMILAR OPTICAL PATTERNS IN NONLINEAR MEDIA	Pure & Applied Physics
25	5108-1	Synthesis of Photocatalytic Porous Silicon-Containing Nitride and Oxynitride Nanocomposites	Material Sciences
26	5109-1	Survey of soil-Si pools and contribution of Si fertilization in a sustainable rice cultivation in South India	Environmental Science
27	5203-1	Molecular study of RH gene variants in Indians	Life & Health Sciences
28	5203-2	Insights on protein structural and evolutionary dynamics	Life & Health Sciences
29	5203-4	Novel inhibitors of NHEJ against resistant tumour cells	Life & Health Sciences
30	5203-5	Characterisation of factors that determine the balance between genomic integrity and diversity in Helicobacter pylori	Life & Health Sciences
31	5204-1	Monomode and multimode phase sensitive amplification and light storage	Pure & Applied Physics
32	5204-3	MODELLING PLASMA INSTABILITIES AND TRANSPORT IN A HALL THRUSTER	Pure & Applied Physics
33	5208-1	Plasticity of covalent nanoparticles	Material Sciences
34	5208-2	Novel nanocatalysts synthesis guided by DNP NMR	Material Sciences
35	5300-B1	A comparative Systems Biology Approach for Understanding Desiccation Tolerance in Forage Grasses and Selaginella sps.	Biotechnology
36	5302-1	Large-Scale Loss-based Learning via Energy Minimization	Computational Sciences
37	5303-2	Original biocompatible phosphorus dendrimers as a new strategy to tackle pulmonary tuberculosis	Life & Health Sciences
38	5304-1	Theoretical studies on ultra-cold Dipolar Gases	Pure & Applied Physics

39	5304-3	Quantum transport in 2D van der Waals heterostructures based on graphene and Boron Nitride	Pure & Applied Physics
40	5305-1	Axially chiral biaryls from C-H activation & radicals	Pure & Applied Chemistry
41	5307-1	Advanced time-domain integration schemes for the simulation of Earth and planetary core dynamics	Earth & Planetary Sciences
42	5308-1	Magnetism of self-organized structures at surfaces	Material Sciences
43	5403-1	Pathogenic Aspergillus: Interaction with innate immune cells	Life & Health Sciences
44	5404-1	LORIC: LOng-Range Interactions in ultraCold gases	Pure & Applied Physics
45	5404-2	Glimpses of New Physics	Pure & Applied Physics
46	5405-1	H2 evolution: cheap catalysts for noble task	Pure & Applied Chemistry
47	5408-1	Understanding mechanical size effects in metallic micro-wires: synergy between experiments and simulation	Material Sciences
48	5409-1	CHROmITe: Assessment of CHromium Release from sukinda mining Overburden: an IsoTopic, chemical, physical and microbiological study	Environmental Science
49	5503-1	Elucidation of conserved molecular signatures and regulators for blood cell progenitor maintenance	Life & Health Sciences
50	5503-2	Molecular analysis of a capacitor Hox protein motif	Life & Health Sciences
51	5504-1	Wavelet Graphs for Gravitational Wave Searches	Pure & Applied Physics
52	5504-2	Cosmological evolution of the cold gas from quasar absorption lines	Pure & Applied Physics
53	5504-3	Electrical addressing and control of the plasmonic properties of coupled metal nanowire	Pure & Applied Physics
54	5505-1	N-Heterocyclic Carbene (NHC)-Organocatalyzed Enantioselective Trifluoromethylation and Trifluoromethylthiolation of Unactivated C-H Bonds	Pure & Applied Chemistry
55	5505-2	Chiral Phosphahelicenes in Gold(I) Enantioselective Catalysis	Pure & Applied Chemistry
56	5603-1	Functional genomics of glioblastoma: from epigenetics to proteomic investigation of tumor initiating cell secretome	Life & Health Sciences
57	5604-1	Modeling Soft Glassy Flow from Micro to Macro Scale	Pure & Applied Physics

58	5604-2	Extreme events and large deviations in strongly correlated many body systems	Pure & Applied Physics
59	5604-3	Interplay between MgO oxygen vacancies and tunnelling spin transfer torque	Pure & Applied Physics
60	5604-4	Nuclear structure at the extreme of isospin and spin.	Pure & Applied Physics
61	5605-1	Metal chelators derived from imidazole thiones and selones for detoxification	Pure & Applied Chemistry
62	5607-1	Impact of the Indian Monsoon convection on the Tropical Tropopause Layer abnd climate	Earth & Planetary Sciences
63	5608-1	Biodegradable core shell electrospun mats and interconnected porous scaffolds for tunable anticancer drug delivery and tissue engineering application	Material Sciences
64	5702-1	The Economics of Networks and Queues	Computational Sciences
65	5703-1	Control of microtubule dynamic instability by the tubulin code	Life & Health Sciences
66	5703-2	A genome-wide study to identify novel regulators of chromosome stability using a human pathogenic yeast Candida albicans as the model system	Life & Health Sciences
67	5708-1	DURABLE FUEL CELLS BASED ON POLYMER COATED NANOCARBON COMPOSITES (DUPONT)	Material Sciences
68	5803-1	Mechanism of polarity reversals in Myxococcus xanthus	Life & Health Sciences
69	5803-2	Directing the ballet of Meiotic chromosomes: regulation of Separase and control of MOnopolar KInetochore orientation -SMOKI	Life & Health Sciences
70	5804-1	The assembly history of disk galaxies over the last 8 billion years	Pure & Applied Physics
71	5804-2	Micro-SQUID magnetometry of nano-scale magnetic structures	Pure & Applied Physics
72	5804-3	Phase transitions in sub-saturation nuclear matter and applications to core-collapse supernova and nuclear experiments	Pure & Applied Physics
73	5805-1	Novel Chiral First row Transition Complexes for Asymmetric Catalysis via Activation of inert C-H and C-Heteroatom bonds	Pure & Applied Chemistry
74	5808-1	Tuning the interfacial Dzyaloshinskii-Moriya interaction in ultrathin magnetic films: toward the stabilization of skyrmions in spintronics devices	Material Sciences
75	5902-1	NOVIS60: Non-contact vital sign estimation with 60 GHz radar technology	Computational Sciences

76	5903-1	Hematopoiesis and metabolism	Life & Health Sciences
77	5904-1	Modelling and observing pulsars: from high energy to radio emission.	Pure & Applied Physics
78	5904-3	Pre-evolutionary processes in autocatalytic RNA networks	Pure & Applied Physics
79	5905-1	Boron-controlled CO2 reduction	Pure & Applied Chemistry
80	5907-1	Nutrient transfers through groundwater in India (NUNDERGROUND)	Earth & Planetary Sciences
81	5908-1	A novel high temperature selective coating on superalloy substrates stable up to 600 deg. C in air for solar thermal electricity receivers: Studies on improved efficiency and accelerated aging tests	Material Sciences
82	5908-2	2D Materials for novel nano electronic device applications	Material Sciences
83	6003-1	Membrane Biogenesis in Apicomplexa parasites: Trafficking and recycling lipid sources for membrane remodelling as drug targets against malaria and toxoplasmosis	Life & Health Sciences
84	6004-1	Design and Control of many-body states in hybrid quantum systems	Pure & Applied Physics
85	6005-1	Enhanced CO2 adsorption and its photo-electrochemical conversion using semiconductor-metal complex hybrids	Pure & Applied Chemistry
86	6005-2	From molecules to aerosols and dust particles: applications to the physics and chemistry of planetary atmospheres and the interstellar medium	Pure & Applied Chemistry
87	6007-1	Petrologic, Os isotopic and platinum-group element (PGE) geochemical studies of the Archean komatiites from the Singhbhum craton (eastern India): implications for chemical differentiation of the Earth and prospects for Ni-Cu-(PGE) sulfide mineralization	Earth & Planetary Sciences
88	6008-1	Nanowire white LEDs based on innovative nano-phosphors	Material Sciences
89	6101-1	Maximal abelian subalgebras in operator algebras	Pure & Applied Mathematics
90	6102-1	Integrating Machine Learning With Feature Selection To Build Interpretable Models For Precision Oncology	Computational Sciences

91	6103-1	How mechanical conflicts contribute to organ shape reproducibility in plants	Life & Health Sciences
92	6103-2	The genomic and evolutionary landscape of azole resistance in budding yeast	Life & Health Sciences
93	6104-1	Turbulent flows in equilibrium	Pure & Applied Physics
94	6104-2	Optoelectronics in van der Waals heterostructures: from fundamentals to quantum device engineering	Pure & Applied Physics
95	6109-1	Chromium isotopes as tracers of environmental contamination and remediation	Environmental Science
96	6203-1	Exploring the role of DNAse1L3in obesity-associated metaflammation and type 2 diabetes	Life & Health Sciences
97	62T10-3	Fluorescent-amyloid-beta peptides to study interaction with copper, aggregation and reactive oxygen species	Biological chemistry (chemistry for unravelling the biological process)
98	62T5-1	Understanding mechanobiological basis of the evolutionary diversity in spindles dynamics of nematodes	Biological questions using or developing Mathematical, computational or physical approaches
99	62T9-1	Q-Walker: programmable quantum dynamics simulator	Exotic States of Materials & Quantum Criticality
100	6303-2	Understanding the mechanism of crack-entry adapted root nodule symbiosis	Life & Health Sciences
101	6303-3	Profiling of gut microbiota and its metabolites during endocrine-disrupting chemical induced-glucose dyshomeostasis: Implications on host glucose metabolism	Life & Health Sciences
102	6304-2	Beyond Standard Model Physics with Neutrino and Dark Matter at Energy, Intensity and Cosmic Frontiers	Pure & Applied Physics
103	6304-3	Novel Non-Perturbative Approaches to Strongly Coupled QCD Matter	Pure & Applied Physics
104	6304-4	Pairing in neutron-star matter with renormalization-group based low-momentum interactions	Pure & Applied Physics
105	6305-1	Discovery and understanding of new glycosylation methods	Pure & Applied Chemistry
106	64T3-1	Numerical Investigations of Quantum Spin Liquids in SU(N) Antiferromagnetic models	Quantum Materials

107	Group Farming and Collective Actions	Does the French model hold lessons for Indian and French farming futures?	Pure & Applied Chemistry
108	Network-1 AHUS	International Study on a Typical Hemolytic Uremic Syndrome	High Impact Scientific Network Project

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