Anirban Mukhopadhyay

List of Publications by Year
in descending order

153 papers	3,391 citations	172457 29 h-index	168389 53 g-index
165 all docs	165 docs citations	165 times ranked	2508 citing authors

#	Article	IF	Citations
1	A Survey of Multiobjective Evolutionary Algorithms for Data Mining: Part I. IEEE Transactions on Evolutionary Computation, 2014, 18, 4-19.	10.0	319
2	Multiobjective Genetic Clustering for Pixel Classification in Remote Sensing Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 1506-1511.	6.3	254
3	An improved algorithm for clustering gene expression data. Bioinformatics, 2007, 23, 2859-2865.	4.1	239
4	Survey of Multiobjective Evolutionary Algorithms for Data Mining: Part II. IEEE Transactions on Evolutionary Computation, 2014, 18, 20-35.	10.0	158
5	A Survey of Multiobjective Evolutionary Clustering. ACM Computing Surveys, 2015, 47, 1-46.	23.0	127
6	A Survey and Comparative Study of Statistical Tests for Identifying Differential Expression from Microarray Data. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2014, 11, 95-115.	3.0	105
7	Multiobjective Genetic Algorithm-Based Fuzzy Clustering of Categorical Attributes. IEEE Transactions on Evolutionary Computation, 2009, 13, 991-1005.	10.0	102
8	A multiobjective approach to MR brain image segmentation. Applied Soft Computing Journal, 2011, 11, 872-880.	7.2	93
9	Combining Pareto-optimal clusters using supervised learning for identifying co-expressed genes. BMC Bioinformatics, 2009, 10, 27.	2.6	86
10	Multiobjective Genetic Algorithms for Clustering. , 2011, , .		85
11	Prediction of protein subcellular localization by incorporating multiobjective PSO-based feature subset selection into the general form of Chouâ€™s PseAAC. Medical and Biological Engineering and Computing, 2015, 53, 331-344.	2.8	76
12	Machine learning techniques for sequence-based prediction of viralâ€“host interactions between SARS-CoV-2 and human proteins. Biomedical Journal, 2020, 43, 438-450.	3.1	73
13	Unsupervised Pixel Classification in Satellite Imagery Using Multiobjective Fuzzy Clustering Combined With SVM Classifier. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 1132-1138.	6.3	72
14	A Novel Biclustering Approach to Association Rule Mining for Predicting HIV-1â€“Human Protein Interactions. PLoS ONE, 2012, 7, e32289.	2.5	51
15	RANWAR: Rank-Based Weighted Association Rule Mining From Gene Expression and Methylation Data. IEEE Transactions on Nanobioscience, 2015, 14, 59-66.	3.3	51
16	Towards improving fuzzy clustering using support vector machine: Application to gene expression data. Pattern Recognition, 2009, 42, 2744-2763.	8.1	48
17	Gene-Expression-Based Cancer Subtypes Prediction Through Feature Selection and Transductive SVM. IEEE Transactions on Biomedical Engineering, 2013, 60, 1111-1117.	4.2	45
18	Detecting protein complexes in a PPI network: a gene ontology based multi-objective evolutionary approach. Molecular BioSystems, 2012, 8, 3036.	2.9	44

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19	A NOVEL COHERENCE MEASURE FOR DISCOVERING SCALING BICLUSTERS FROM GENE EXPRESSION DATA. Journal of Bioinformatics and Computational Biology, 2009, 07, 853-868.	0.8	43
20	Multi-Class Clustering of Cancer Subtypes through SVM Based Ensemble of Pareto-Optimal Solutions for Gene Marker Identification. PLoS ONE, 2010, 5, e13803.	2.5	43
21	Coexpression and coregulation analysis of time-series gene expression data in estrogen-induced breast cancer cell. Algorithms for Molecular Biology, 2013, 8, 9.	1.2	39
22	An SVM-Wrapped Multiobjective Evolutionary Feature Selection Approach for Identifying Cancer-MicroRNA Markers. IEEE Transactions on Nanobioscience, 2013, 12, 275-281.	3.3	39
23	An Interactive Approach to Multiobjective Clustering of Gene Expression Patterns. IEEE Transactions on Biomedical Engineering, 2013, 60, 35-41.	4.2	38
24	Incorporating the type and direction information in predicting novel regulatory interactions between HIV-1 and human proteins using a biclustering approach. BMC Bioinformatics, 2014, 15, 26.	2.6	38
25	A Graph-Theoretic Approach for Identifying Non-Redundant and Relevant Gene Markers from Microarray Data Using Multiobjective Binary PSO. PLoS ONE, 2014, 9, e90949.	2.5	35
26	DenvInt: A database of proteinâ€"protein interactions between dengue virus and its hosts. PLoS Neglected Tropical Diseases, 2017, 11, e0005879.	3.0	34
27	Multiobjective Genetic Clustering with Ensemble Among Pareto Front Solutions: Application to MRI Brain Image Segmentation. , 2009, , .		33
28	Simulated annealing based automatic fuzzy clustering combined with ANN classification for analyzing microarray data. Computers and Operations Research, 2010, 37, 1369-1380.	4.0	33
29	Solving maximal covering location problem using genetic algorithm with local refinement. Soft Computing, 2018, 22, 3891-3906.	3.6	33
30	Analyzing Large Gene Expression and Methylation Data Profiles Using StatBicRM: Statistical Biclustering-Based Rule Mining. PLoS ONE, 2015, 10, e0119448.	2.5	32
31	On Biclustering of Gene Expression Data. Current Bioinformatics, 2010, 5, 204-216.	1.5	30
32	Identifying Non-Redundant Gene Markers from Microarray Data: A Multiobjective Variable Length PSO-Based Approach. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2014, 11, 1170-1183.	3.0	30
33	A review ofin silicoapproaches for analysis and prediction of HIV-1-human proteinâ€"protein interactions. Briefings in Bioinformatics, 2015, 16, 830-851.	6.5	30
34	Mining Quasi-Bicliques from HIV-1-Human Protein Interaction Network: A Multiobjective Biclustering Approach. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2013, 10, 423-435.	3.0	29
35	Clustering using Multi-objective Genetic Algorithm and its Application to Image Segmentation. , 2006, , .		27
36	Identification of infectious disease-associated host genes using machine learning techniques. BMC Bioinformatics, 2019, 20, 736.	2.6	26

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37	A New Approach for Association Rule Mining and Bi-clustering Using Formal Concept Analysis. Lecture Notes in Computer Science, 2012, , 86-101.	1.3	26
38	Finding Multiple Coherent Biclusters in Microarray Data Using Variable String Length Multiobjective Genetic Algorithm. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 969-975.	3.2	25
39	Integrated analysis of gene expression and genome-wide DNA methylation for tumor prediction: An association rule mining-based approach. , 2013, , .		23
40	An application of genetic algorithm method for solving patrol manpower deployment problems through fuzzy goal programming in traffic management system: a case study. International Journal of Bio-Inspired Computation, 2012, 4, 47.	0.9	21
41	Multiobjective triclustering of time-series transcriptome data reveals key genes of biological processes. BMC Bioinformatics, 2015, 16, 200.	2.6	19
42	A multiobjective approach for identifying protein complexes and studying their association in multiple disorders. Algorithms for Molecular Biology, 2015, 10, 24.	1.2	19
43	A comprehensive analysis on preservation patterns of gene co-expression networks during Alzheimerâ€™s disease progression. BMC Bioinformatics, 2017, 18, 579.	2.6	19
44	Exploration and Exploitation Without Mutation: Solving the Jump Function in $$varTheta (n)$$ Time. Lecture Notes in Computer Science, 2018, , 55-66.	1.3	19
45	Solving tool indexing problem using harmony search algorithm with harmony refinement. Soft Computing, 2019, 23, 7407-7423.	3.6	18
46	Clustering Ensemble: A Multiobjective Genetic Algorithm based Approach. Procedia Technology, 2013, 10, 443-449.	1.1	17
47	A PSO-Based Approach for Pathway Marker Identification From Gene Expression Data. IEEE Transactions on Nanobioscience, 2015, 14, 591-597.	3.3	17
48	Multiobjective Genetic Fuzzy Clustering of Categorical Attributes. , 2007, , .		16
49	MULTIOBJECTIVE EVOLUTIONARY APPROACH TO FUZZY CLUSTERING OF MICROARRAY DATA. Science, Engineering, and Biology Informatics, 2007, , 303-328.	0.1	15
50	Network-Based Study Reveals Potential Infection Pathways of Hepatitis-C Leading to Various Diseases. PLoS ONE, 2014, 9, e94029.	2.5	15
51	Preservation affinity in consensus modules among stages of HIV-1 progression. BMC Bioinformatics, 2017, 18, 181.	2.6	15
52	An improved method for identification of small non-coding RNAs in bacteria using support vector machine. Scientific Reports, 2017, 7, 46070.	3.3	14
53	Multi-objective uncapacitated facility location problem with customersâ€™ preferences: Pareto-based and weighted sum GA-based approaches. Soft Computing, 2019, 23, 12347-12362.	3.6	14
54	Multiobjective fuzzy biclustering in microarray data: Method and a new performance measure. , 2008, , .		13

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55	Unsupervised Satellite Image Segmentation by Combining SA Based Fuzzy Clustering with Support Vector Machine. , 2009, , .		13
56	Multiobjective PSO-based rank aggregation: Application in gene ranking from microarray data. Information Sciences, 2017, 385-386, 55-75.	6.9	13
57	A Heuristic Algorithm for Static Wavelength Assignment in WDM Optical Networks. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2005, 22, 199-204.	3.2	12
58	Multiobjective approach to categorical data clustering. , 2007, , .		12
59	A Weighted Rank aggregation approach towards crowd opinion analysis. Knowledge-Based Systems, 2018, 149, 47-60.	7.1	12
60	Integrated Statistical and Rule-Mining Techniques for Dna Methylation and Gene Expression Data Analysis. Journal of Artificial Intelligence and Soft Computing Research, 2013, 3, 101-115.	4.3	12
61	Solving Uncapacitated Facility Location Problem Using Monkey Algorithm. Advances in Intelligent Systems and Computing, 2018, , 71-78.	0.6	11
62	Discovering key transcriptomic regulators in pancreatic ductal adenocarcinoma using Dirichlet process Gaussian mixture model. Scientific Reports, 2021, 11, 7853.	3.3	11
63	Î´-TRIMAX: Extracting Triclusters and Analysing Coregulation in Time Series Gene Expression Data. Lecture Notes in Computer Science, 2012, , 165-177.	1.3	11
64	Mining association rules from HIV-human protein interactions. , 2010, , .		10
65	Identifying the immunodeficiency gateway proteins in humans and their involvement in microRNA regulation. Molecular BioSystems, 2011, 7, 1842.	2.9	10
66	Deterministic and Randomized Heuristic Algorithms for Uncapacitated Facility Location Problem. Advances in Intelligent Systems and Computing, 2018, , 205-216.	0.6	10
67	Analysis of microarray data using multiobjective variable string length genetic fuzzy clustering. , 2009, , .		9
68	Neuro-Fuzzy Controller Design to Navigate Unmanned Vehicle with Construction of Traffic Rules to Avoid Obstacles. International Journal of Uncertainty, Fuzziness and Knowlege-Based Systems, 2016, 24, 433-449.	1.9	9
69	Analyzing Prognosis Characteristics of Hepatitis C using a Biclustering Based Approach. Procedia Computer Science, 2017, 115, 282-289.	2.0	9
70	Solving a new variant of the capacitated maximal covering location problem with fuzzy coverage area using metaheuristic approaches. Computers and Industrial Engineering, 2022, 170, 108315.	6.3	9
71	Combining multiobjective fuzzy clustering and probabilistic ANN classifier for unsupervised pattern classification: Application to satellite image segmentation. , 2008, , .		8
72	A novel PSO-based graph-theoretic approach for identifying most relevant and non-redundant gene markers from gene expression data. International Journal of Parallel, Emergent and Distributed Systems, 2015, 30, 175-192.	1.0	8

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73	Dependent judgment analysis: A Markov chain based approach for aggregating crowdsourced opinions. Information Sciences, 2017, 396, 83-96.	6.9	8
74	A Classification-based Approach to Prediction of Dengue Virus and Human Protein-Protein Interactions using Amino Acid Composition and Conjoint Triad Features. , 2019, , .		8
75	A Review of Judgment Analysis Algorithms for Crowdsourced Opinions. IEEE Transactions on Knowledge and Data Engineering, 2020, 32, 1234-1248.	5.7	8
76	Genetic Algorithm and Simulated Annealing based Approaches to Categorical Data Clustering. , 2008, , .		7
77	Unsupervised Non-redundant Feature Selection: A Graph-Theoretic Approach. Advances in Intelligent Systems and Computing, 2013, , 373-380.	0.6	7
78	Biclusteringâ€based association rule mining approach for predicting cancerâ€associated protein interactions. IET Systems Biology, 2019, 13, 234-242.	1.5	7
79	Enrichment of laccase production byPhoma herbarumisolate KU4 under solidâ€state fermentation by optimizing RSM coefficients using genetic algorithm. Letters in Applied Microbiology, 2021, 73, 515-528.	2.2	7
80	Pan-cancer classification by regularized multi-task learning. Scientific Reports, 2021, 11, 24252.	3.3	7
81	A multiobjective PSO-based approach for identifying non-redundant gene markers from microarray gene expression data. , 2012, , .		6
82	A Hybrid Multiobjective Particle Swarm Optimization Approach for Non-redundant Gene Marker Selection. Advances in Intelligent Systems and Computing, 2013, , 205-216.	0.6	6
83	Identification of Hub Genes and Key Modules in Stomach Adenocarcinoma Using nsNMF-Based Data Integration Technique. , 2019, , .		6
84	A Graph-Based Approach for Finding the Dengue Infection Pathways in Humans Using Proteinâ€"Protein Interactions. Journal of Computational Biology, 2020, 27, 755-768.	1.6	6
85	A network biology approach to identify crucial host targets for COVID-19. Methods, 2022, 203, 108-115.	3.8	6
86	Predicting annotated HIV-1-Human PPIs using a biclustering approach to association rule mining. , 2012, , .		5
87	Handwritten Indic Script Recognition Based on the Dempsterâ€"Shafer Theory of Evidence. Journal of Intelligent Systems, 2019, 29, 264-282.	1.6	5
88	A game theory-based approach to fuzzy clustering for pixel classification in remote sensing imagery. Soft Computing, 2021, 25, 5121-5129.	3.6	5
89	Identification of key immune regulatory genes in HIV-1 progression. Gene, 2021, 792, 145735.	2.2	5
90	A multi-objective formulation of maximal covering location problem with customersâ€™ preferences: Exploring Pareto optimality-based solutions. Expert Systems With Applications, 2021, 186, 115830.	7.6	5

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91	MOSCFRA: A Multi-objective Genetic Approach for Simultaneous Clustering and Gene Ranking. Lecture Notes in Computer Science, 2011, , 174-187.	1.3	5
92	A genetic algorithm for traffic grooming in unidirectional SONET/WDM rings. , 0, , .		4
93	Efficient Two-stage Fuzzy Clustering of Microarray Gene Expression Data. , 2006, , .		4
94	Multiobjective evolutionary approach to cost-effective traffic grooming in unidirectional SONET/WDM rings. Photonic Network Communications, 2009, 18, 105-115.	2.7	4
95	Unsupervised cancer classification through SVM-boosted multiobjective fuzzy clustering with majority voting ensemble. , 2009, , .		4
96	GOGA: GO-driven Genetic Algorithm-based fuzzy clustering of gene expression data. , 2010, , .		4
97	Discovery of MicroRNA markers: An SVM-based multiobjective feature selection approach. , 2011, , .		4
98	Incorporating fuzzy semantic similarity measure in detecting human protein complexes in PPI network: A multiobjective approach. , 2013, , .		4
99	Detecting Perturbation in Co-Expression Modules Associated with Different Stages of HIV-1 Progression: A Multi-objective Evolutionary Approach. , 2014, , .		4
100	Judgment Analysis Based on Crowdsourced Opinions. , 2017, , .		4
101	Simultaneous informative gene selection and clustering through multiobjective optimization. , 2010, , .		3
102	A review of computational approaches for analysis of hepatitis C virus-mediated liver diseases. Briefings in Functional Genomics, 2018, 17, 428-440.	2.7	3
103	Multi-objective Clustering Ensemble for Varying Number of Clusters. , 2018, , .		3
104	Solving Uncapacitated Facility Location Problem Using Heuristic Algorithms. International Journal of Natural Computing Research, 2019, 8, 18-50.	0.5	3
105	Refining Genetic Algorithm Based Fuzzy Clustering through Supervised Learning for Unsupervised Cancer Classification. Lecture Notes in Computer Science, 2009, , 191-202.	1.3	3
106	Detecting Overlapping Gene Communities during Stomach Adenocarcinoma: A Discrete NMF-based Integrative Approach. , 2020, , .		3
107	Evolving coherent and non-trivial biclusters from gene expression data: An evolutionary approach. , 2008, , .		2
108	Multiobjective genetic algorithm based approach to traffic grooming in unidirectional SONET/WDM rings. Journal of Optics (India), 2010, 39, 136-142.	1.7	2

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109	Data Mining Fundamentals. , 2011, , 51-70.		2
110	A PSO-based rank aggregation algorithm for ranking genes from microarray data. , 2013, , .		2
111	Hybrid evolutionary multiobjective fuzzy c-medoids clustering of categorical data. , 2013, , .		2
112	Partial rank aggregation using multiobjective genetic algorithm: Application in ranking genes. , 2015, , .		2
113	Interactive approach to multiobjective genetic fuzzy clustering for satellite image segmentation. , 2016, , .		2
114	Machine Learning and Rule Mining Techniques in the Study of Gene Inactivation and RNA Interference. , 0, , .		2
115	A Comparative Analysis of Different Regression Models on Predicting the Spread of Covid-19 in India. , 2020, , .		2
116	Identifying cancer-associated modules from microRNA co-expression networks: a multiobjective evolutionary approach. Soft Computing, 2020, 24, 17365-17376.	3.6	2
117	Machine learning-driven automatic storage space recommendation for object-based cloud storage system. Complex & Intelligent Systems, 2022, 8, 489-505.	6.5	2
118	DCoSpect: A Novel Differentially Coexpressed Gene Module Detection Algorithm Using Spectral Clustering. Advances in Intelligent Systems and Computing, 2016, , 69-77.	0.6	2
119	Minimization of SADMs in Unidirectional SONET/WDM Rings Using Genetic Algorithms. Chapman & Hall/CRC Computer and Information Science Series, 2005, , 14-209-14-218.	0.4	2
120	Comparison of gene regulatory networks using adaptive neural network and self-organising map approaches over Huh7 hepatoma cell microarray data matrix. International Journal of Bio-Inspired Computation, 2016, 8, 240.	0.9	2
121	ChikvInt: a Chikungunya virusâ€"host proteinâ€"protein interaction database. Letters in Applied Microbiology, 2022, 74, 992-1000.	2.2	2
122	Combining Fuzzy Clustering with ANN Classifier for Categorical Data. , 2009, , .		1
123	Lightpath protection using genetic algorithm through topology mapping in WDM optical networks. Journal of Optics (India), 2010, 39, 32-38.	1.7	1
124	Bio-inspired computational technique to multiobjective optimal planning of electric power generation and dispatch. , 2011, , .		1
125	Identifying most relevant non-redundant gene markers from gene expression data using PSO-based graph -theoretic approach. , 2012, , .		1
126	Power-aware traffic grooming in WDM optical mesh networks for bandwidth wastage minimization: A genetic algorithm-based approach. , 2012, , .		1

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127	A Matlab GUI Package for Comparing Data Clustering Algorithms. Studies in Computational Intelligence, 2014, , 33-48.	0.9	1
128	Genetic Algorithm-Based Matrix Factorization for Missing Value Prediction. Communications in Computer and Information Science, 2017, , 504-516.	0.5	1
129	A Genetic Algorithm-Based Clustering Approach for Selecting Non-redundant MicroRNA Markers from Microarray Expression Data. Springer Proceedings in Mathematics and Statistics, 2018, , 157-169.	0.2	1
130	Different Schemes for Improving Fuzzy Clustering Through Supervised Learning. Communications in Computer and Information Science, 2019, , 155-164.	0.5	1
131	A systems biology approach for identifying key genes and pathways of gastric cancer using microarray data. Gene Reports, 2021, 22, 101011.	0.8	1
132	Identification of Critical Host Targets for HCV Infection: A Systems Biology Approach. , 2021, 6, 755-763.		1
133	Fuzzy association analysis for identifying climatic and socio-demographic factors impacting the spread of COVID-19. Methods, 2021, , .	3.8	1
134	Using Genetic Algorithm to Goal Programming Model of Solving Economic-Environmental Electric Power Generation Problem with Interval-Valued Target Goals. Communications in Computer and Information Science, 2012, , 156-169.	0.5	1
135	Selection of GO-Based Semantic Similarity Measures through AMDE for Predicting Protein-Protein Interactions. Lecture Notes in Computer Science, 2011, , 55-62.	1.3	1
136	Detection of Differentially Expressed Genes in Wild Type HIV-1 Vpr and Two HIV-1 Mutant Vprs. Advances in Intelligent Systems and Computing, 2015, , 597-604.	0.6	1
137	Extracting Biological Significant Subnetworks from Protein-Protein Interactions Induced by Differentially Expressed Genes of HIV-1 Vpr Variants. International Journal of System Dynamics Applications, 2015, 4, 35-51.	0.3	1
138	Incorporating Gene Ontology Information in Gene Expression Data Clustering Using Multiobjective Evolutionary Optimization: Application in Yeast Cell Cycle Data. , 2018, , 55-78.		1
139	Solving Multi-Objective Hierarchical Hub Facility Location Problem Using GA-Based Approaches. , 2021, , .		1
140	Gene expression data analysis using multiobjective clustering improved with SVM based ensemble. In Silico Biology, 2011, 11, 19-27.	0.9	1
141	Multiobjective Genetic Fuzzy Clustering of Categorical Attributes. , 2007, , .		0
142	Improving multi-objective clustering through support vector machine: Application to gene expression data. , 2008, , .		0
143	Fuzzy rule-based classifier for microarray gene expression data by using a multiobjective PSO-based approach. , 2013, , .		0
144	Predicting Protein Subcellular Localization: A Multiobjective PSO-based Feature Subset Selection from Amino Acid Sequence of Protein. , 2014, , .		0

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145	Construction of Co-expression and Co-regulation Network with Differentially Expressed Genes in Bone Marrow Stem Cell Microarray Data. Advances in Intelligent Systems and Computing, 2015, , 761-769.	0.6	0
146	Polynomial equation models for yeast cell-cycle time series microarray data by analysing fidelity matrices of gene expression values. International Journal of Bioinformatics Research and Applications, 2016, 12, 194.	0.2	0
147	System biology approach to identify critical host genes for dengue infection. , 2020, , .		0
148	Discovering Coherent Biclusters from Microarray Gene Expression Data. , 2010, , .		0
149	Two-Stage Fuzzy Clustering. , 2011, , 147-171.		0
150	A Comparative Study Among Various Statistical Tests Using Microarray Gene Expression Data. Current Bioinformatics, 2015, 10, 377-392.	1.5	0
151	MRI Brain Image Segmentation Using Interactive Multiobjective Evolutionary Approach. Advances in Computational Intelligence and Robotics Book Series, 2016, , 10-29.	0.4	0
152	Solving Hierarchical Hub Facility Location Problem Using Refined Genetic Algorithm. Advances in Intelligent Systems and Computing, 2022, , 493-506.	0.6	0
153	Machine Learning Approaches for Discriminating Bacterial and Viral Targeted Human Proteins. Processes, 2022, 10, 291.	2.8	0