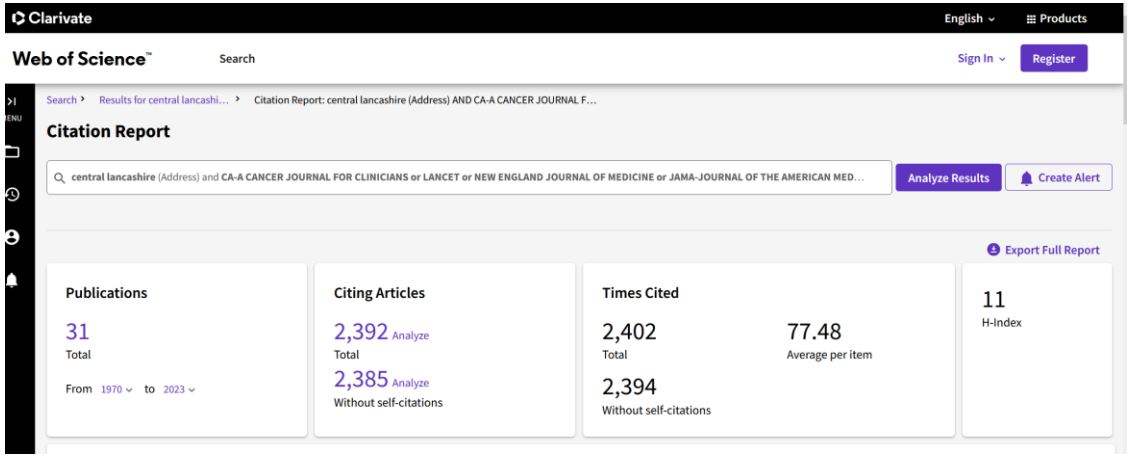
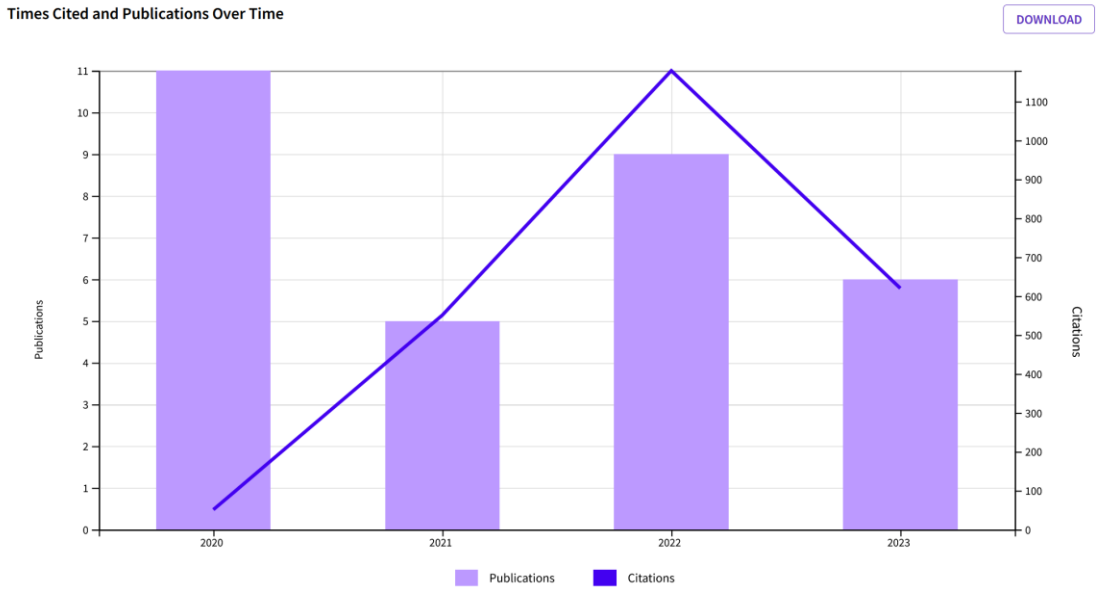
Top 5 papers of impact factor more than 20 from 2020 onwards at UCLan





Title and Rank								Type of document
	2019	2020	2021	2022	2023	year	Total	
Total	0	51	551	1,179	620	600.5	2,402	
1 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS) Hindricks, G; Potpara, T; (...); Watkins, CL Feb 1 2021 | EUROPEAN HEART JOURNAL 42 (5) , pp.373-498	0	41	453	1,031	486	670.67	2,012	Article
2 COVID-19 as a global challenge: towards an inclusive and sustainable future Lambert, H; Gupte, J; (...); Shanks, K Aug 2020 | LANCET PLANETARY HEALTH 4 (8) , pp.E312-E314	0	4	42	34	14	23.5	94	Editorial
3 Management of adults with primary frozen shoulder in secondary care (UK FROST): a multicentre, pragmatic, three-arm, superiority randomised clinical trial Rangan, A; Brealey, SD; (...); Toye, F Oct 3 2020 | LANCET 396 (10256) , pp.977-989	0	0	15	22	19	14	56	Article
4 Visible Light-Driven Selective Organic Degradation by $FeTiO_3$/Persulfate System: the Formation and Effect of High Valent Fe(IV) Pan, LH; Shi, W; (...); Zhang, JL Jan 2021 | APPLIED CATALYSIS B-ENVIRONMENTAL 280	0	0	17	27	11	18.33	55	Article
5 Ten millennia of hepatitis B virus evolution Kocher, A; Papac, L; (...); Kühnert, D Oct 8 2021 | SCIENCE 374 (6564) , pp.183-+	0	0	1	19	15	11.67	35	Article

Article 4 (impact factor 22.1)

Visible Light-Driven Selective Organic Degradation by $FeTiO_3$/Persulfate System: the Formation and Effect of High Valent Fe(IV)

By Pan, LH (Pan, Lihan) [1] , [2] ; Shi, W (Shi, Wen) [1] , [2] ; Sen, T (Sen, Tapas) [3] ; Wang, LZ (Wang, Lingzhi) [1] , [2] ; Zhang, JL (Zhang, Jinlong) [1] , [2]

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Abstract The role of high-valent Fe has rarely been explored in persulfate-based heterogeneous reaction. Herein, the existence of Fe(IV) is verified in a visible light-assisted FeTiO3/persulfate system using methyl phenyl sulfoxide as the probe. The FeTiO3/persulfate/light system is capable of selectively degrading aromatic compounds with lower ionization potentials including tetracycline and bisphenol A by photo-generated high-valent Fe(IV). The contributions from SO4 center dot-, (OH)-O-center dot and O-1(2) are excluded. The comparable efficiency in the dark requires higher dosages and suffers from a rapid deactivation. Based on XPS, Raman and EPR analyses, the poor dark activity is caused by the formation of a complex between in situ formed Fe(III) and SO(4)(2-)on the FeTiO3 surface; this complex is, however, the key intermediate for Fe(IV) production under the light irradiation. This study reveals the long-ignored role of SO42- as an abundant species in iron-based persulfate systems. We also call for re-evaluating the real oxidation mechanism in other persulfate-based reactions considering the different oxidation mechanisms of radicals and high-valent iron.