# A Faik

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8320026/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 106 papers | 2,613 citations | 172457 29 h-index | 223800 46 g-index |
| 114 all docs | 114 docs citations | 114 times ranked | 2160 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Corrosion effects between molten salts and thermal storage material for concentrated solar power plants. Applied Energy, 2012, 94, 174-181. | 10.1 | 184 |
| 2 | Preparation of erythritolâ€“graphite foam phase change composite with enhanced thermal conductivity for thermal energy storage applications. Carbon, 2015, 94, 266-276. | 10.3 | 156 |
| 3 | Thermophysical characterization of a by-product from the steel industry to be used as a sustainable and low-cost thermal energy storage material. Energy, 2015, 89, 601-609. | 8.8 | 108 |
| 4 | Improving powder bed properties for thermochemical storage by adding nanoparticles. Energy Conversion and Management, 2014, 86, 93-98. | 9.2 | 91 |
| 5 | Compatibility of a post-industrial ceramic with nitrate molten salts for use as filler material in a thermocline storage system. Applied Energy, 2013, 109, 387-393. | 10.1 | 86 |
| 6 | Graphite foam as interpenetrating matrices for phase change paraffin wax: A candidate composite for low temperature thermal energy storage. Solar Energy Materials and Solar Cells, 2017, 172, 324-334. | 6.2 | 83 |
| 7 | Shape effect of Al2O3 nanoparticles on the thermophysical properties and viscosity of molten salt nanofluids for TES application at CSP plants. Applied Thermal Engineering, 2020, 169, 114942. | 6.0 | 63 |
| 8 | Natural Magnetite for thermal energy storage: Excellent thermophysical properties, reversible latent heat transition and controlled thermal conductivity. Solar Energy Materials and Solar Cells, 2017, 161, 170-176. | 6.2 | 58 |
| 9 | A simple approach for fabrication of interconnected graphitized macroporous carbon foam with uniform mesopore walls by using hydrothermal method. Carbon, 2015, 87, 434-443. | 10.3 | 57 |
| 10 | Hierarchical macro-nanoporous metals for leakage-free high-thermal conductivity shape-stabilized phase change materials. Applied Energy, 2020, 269, 115088. | 10.1 | 52 |
| 11 | Unexpected effect of nanoparticles doping on the corrosivity of molten nitrate salt for thermal energy storage. Solar Energy Materials and Solar Cells, 2018, 178, 91-97. | 6.2 | 51 |
| 12 | Crystal structures and phase transitions of Sr2CrSbO6. Journal of Solid State Chemistry, 2009, 182, 1717-1725. | 2.9 | 50 |
| 13 | Mg-Zn-Al Eutectic Alloys as Phase Change Material for Latent Heat Thermal Energy Storage. Energy Procedia, 2015, 69, 1006-1013. | 1.8 | 50 |
| 14 | The effect of humidity, impurities and initial state on the corrosion of carbon and stainless steels in molten HitecXL salt for CSP application. Solar Energy Materials and Solar Cells, 2018, 174, 34-41. | 6.2 | 48 |
| 15 | Mode-crystallography analysis of the crystal structures and the low- and high-temperature phase transitions in Na<sub>0.5</sub>K<sub>0.5</sub>NbO<sub>3</sub>. Journal of Applied Crystallography, 2015, 48, 318-333. | 4.5 | 47 |
| 16 | Thermal storage material from inertized wastes: Evolution of structural and radiative properties with temperature. Solar Energy, 2012, 86, 139-146. | 6.1 | 44 |
| 17 | A Highly Stable Nonhysteretic {Cu<sub>2</sub>(tebpz) MOF+water} Molecular Spring. ChemPhysChem, 2016, 17, 3359-3364. | 2.1 | 42 |
| 18 | Corrosion aspects of molten nitrate salt-based nanofluids for thermal energy storage applications. Solar Energy, 2019, 189, 219-227. | 6.1 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Natural and by-product materials for thermocline-based thermal energy storage system at CSP plant: Structural and thermophysical properties. Applied Thermal Engineering, 2018, 136, 185-193. | 6.0 | 41 |
| 20 | A simple method for the inhibition of the corrosion of carbon steel by molten nitrate salt for thermal storage in concentrating solar power applications. Npj Materials Degradation, 2018, 2, . | 5.8 | 39 |
| 21 | Nanofluids based on molten carbonate salts for high-temperature thermal energy storage: Thermophysical properties, stability, compatibility and life cycle analysis. Solar Energy Materials and Solar Cells, 2021, 220, 110838. | 6.2 | 38 |
| 22 | Crystal structures and high-temperature phase transitions of the new ordered double perovskites and. Journal of Solid State Chemistry, 2009, 182, 2656-2663. | 2.9 | 37 |
| 23 | Zinc-rich eutectic alloys for high energy density latent heat storage applications. Journal of Alloys and Compounds, 2017, 705, 714-721. | 5.5 | 36 |
| 24 | Sensing selectivity of SnO2-Mn3O4 nanocomposite sensors for the detection of H2 and CO gases. Surfaces and Interfaces, 2021, 25, 101190. | 3.0 | 36 |
| 25 | Compatibility of container materials for Concentrated Solar Power with a solar salt and alumina based nanofluid: A study under dynamic conditions. Renewable Energy, 2020, 146, 384-396. | 8.9 | 33 |
| 26 | Effect of Al2O3 nanoparticles on laminar, transient and turbulent flow of isopropyl alcohol. International Journal of Heat and Mass Transfer, 2019, 130, 1032-1044. | 4.8 | 31 |
| 27 | Inhibiting hot corrosion of molten Li2CO3-Na2CO3-K2CO3 salt through graphitization of construction materials for concentrated solar power. Solar Energy Materials and Solar Cells, 2020, 215, 110650. | 6.2 | 31 |
| 28 | A study of the crystal structures and the phase transitions of Sr2FeSbO6, SrCaFeSbO6 and Ca2FeSbO6 double perovskite oxides. Journal of Molecular Structure, 2010, 963, 145-152. | 3.6 | 30 |
| 29 | Nanoparticles as a high-temperature anticorrosion additive to molten nitrate salts for concentrated solar power. Solar Energy Materials and Solar Cells, 2019, 203, 110171. | 6.2 | 30 |
| 30 | Crystal structures and cation ordering of Sr2AlSbO6 and Sr2CoSbO6. Journal of Solid State Chemistry, 2008, 181, 1759-1766. | 2.9 | 29 |
| 31 | A study of the crystal structures and the phase transitions of the ordered double perovskites Sr2ScSbO6 and Ca2ScSbO6. Journal of Solid State Chemistry, 2012, 192, 273-283. | 2.9 | 29 |
| 32 | Synthesis, structural, magnetic and phase-transition studies of the ferromagnetic La<sub>2</sub>CoMnO<sub>6</sub> double perovskite by symmetry-adapted modes. Dalton Transactions, 2015, 44, 13867-13880. | 3.3 | 29 |
| 33 | Spray-graphitization as a protection method against corrosion by molten nitrate salts and molten salts based nanofluids for thermal energy storage applications. Solar Energy Materials and Solar Cells, 2019, 200, 110024. | 6.2 | 29 |
| 34 | Improving the redox performance of Mn2O3/Mn3O4 pair by Si doping to be used as thermochemical energy storage for concentrated solar power plants. Solar Energy, 2020, 204, 144-154. | 6.1 | 29 |
| 35 | Thermo-physical Properties of a Steel-making by-product to be used as Thermal Energy Storage Material in a Packed-bed System. Energy Procedia, 2015, 69, 968-977. | 1.8 | 27 |
| 36 | Graphitization as efficient inhibitor of the carbon steel corrosion by molten binary nitrate salt for thermal energy storage at concentrated solar power. Solar Energy Materials and Solar Cells, 2019, 203, 110172. | 6.2 | 27 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | SiO2@Al2O3 core-shell nanoparticles based molten salts nanofluids for thermal energy storage applications. Journal of Energy Storage, 2019, 26, 101033. | 8.1 | 26 |
| 38 | Double hydrates salt as sustainable thermochemical energy storage materials: Evaluation of dehydration behavior and structural phase transition reversibility. Solar Energy, 2020, 201, 846-856. | 6.1 | 26 |
| 39 | Structural changes upon lithium insertion in Ni 0.5 TiOPO 4. Journal of Alloys and Compounds, 2012, 530, 178-185. | 5.5 | 25 |
| 40 | Experimental investigation of Mg-Zn-Al metal alloys for latent heat storage application. Journal of Alloys and Compounds, 2016, 685, 724-732. | 5.5 | 25 |
| 41 | Effect of Flexibility and Nanotriboelectrification on the Dynamic Reversibility of Water Intrusion into Nanopores: Pressure-Transmitting Fluid with Frequency-Dependent Dissipation Capability. ACS Applied Materials & Interfaces, 2019, 11, 40842-40849. | 8.0 | 25 |
| 42 | Pore Morphology Determines Spontaneous Liquid Extrusion from Nanopores. ACS Nano, 2019, 13, 1728-1738. | 14.6 | 25 |
| 43 | Multilevel comparison between magnetite and quartzite as thermocline energy storage materials. Applied Thermal Engineering, 2019, 149, 1142-1153. | 6.0 | 23 |
| 44 | Iron titanium phosphates as high-specific-capacity electrode materials for lithium ion batteries. Journal of Alloys and Compounds, 2014, 585, 434-441. | 5.5 | 22 |
| 45 | Wettability Control for Correct Thermophysical Properties Determination of Molten Salts and Their Nanofluids. Energies, 2019, 12, 3765. | 3.1 | 20 |
| 46 | Tunable Redox Temperature of a Co<sub>3â€“x</sub>Mn<sub>x</sub>O<sub>4</sub> (0 â‰¤ Tj ETQq0 0 0 rgBT /Overl & Interfaces, 2020, 12, 7010-7020. | 8.0 | 20 |
| 47 | Natural and by-product materials for thermocline-based thermal energy storage system at CSP plant: Compatibility with mineral oil and molten nitrate salt. Applied Thermal Engineering, 2018, 136, 657-665. | 6.0 | 19 |
| 48 | Investigation of magnesium-copper eutectic alloys with high thermal conductivity as a new PCM for latent heat thermal energy storage at intermediate-high temperature. Journal of Energy Storage, 2019, 26, 100974. | 8.1 | 19 |
| 49 | Thermal cycling testing of Znâ€“Mgâ€“Al eutectic metal alloys as potential high-temperature phase change materials for latent heat storage. Journal of Thermal Analysis and Calorimetry, 2017, 129, 885-894. | 3.6 | 18 |
| 50 | Crystal structure and phase transitions of. Journal of Solid State Chemistry, 2007, 180, 2248-2255. | 2.9 | 17 |
| 51 | Crystal structures and high-temperature phase-transitions in SrNdMRuO6 (M=Zn,Co,Mg,Ni) new double perovskites studied by symmetry-mode analysis. Journal of Solid State Chemistry, 2013, 198, 24-38. | 2.9 | 17 |
| 52 | New insights into the corrosion mechanism between molten nitrate salts and ceramic materials for packed bed thermocline systems: A case study for steel slag and Solar salt. Solar Energy, 2018, 173, 152-159. | 6.1 | 16 |
| 53 | Performance assessment of an oil-based packed bed thermal energy storage unit in a demonstration concentrated solar power plant. Energy, 2021, 217, 119378. | 8.8 | 16 |
| 54 | Effect of silica nanoparticle size on the stability and thermophysical properties of molten salts based nanofluids for thermal energy storage applications at concentrated solar power plants. Journal of Energy Storage, 2022, 51, 104276. | 8.1 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Viscosity at the Nanoscale: Confined Liquid Dynamics and Thermal Effects in Self-Recovering Nanobumpers. Journal of Physical Chemistry C, 2018, 122, 14248-14256. | 3.1 | 15 |
| 56 | Preparation and characterization of nanofluids based on molten salts with enhanced thermophysical properties for thermal energy storage at concentrate solar power. AIP Conference Proceedings, 2019, , . | 0.4 | 15 |
| 57 | Advanced experimental investigation of double hydrated salts and their composite for improved cycling stability and metal compatibility for long-term heat storage technologies. Renewable Energy, 2020, 162, 447-457. | 8.9 | 15 |
| 58 | Improved thermocline initialization through optimized inlet design for single-tank thermal energy storage systems. Journal of Energy Storage, 2021, 42, 103088. | 8.1 | 15 |
| 59 | Parametric analysis of a packed bed thermal energy storage system. AIP Conference Proceedings, 2017, , . | 0.4 | 14 |
| 60 | Characterization of natural rocks as filler materials for medium-temperature packed bed thermal energy storage system. Journal of Energy Storage, 2020, 32, 101822. | 8.1 | 14 |
| 61 | Silica gel/inorganic salts composites for thermochemical heat storage: Improvement of energy storage density and assessment of cycling stability. Materials Today: Proceedings, 2020, 30, 937-941. | 1.8 | 14 |
| 62 | Synthesis, structural refinement and physical properties of novel perovskite ceramics Ba1-xBixTi1-xMnxO3 (x = 0.3 and 0.4). Materials Chemistry and Physics, 2021, 262, 124302. | 4.0 | 14 |
| 63 | Cationic ordering and role of the A-site cation on the structure of the new double perovskites Ca2â^'xSrxRSbO6 (R=La,Sm) and (x=0,0.5,1). Journal of Molecular Structure, 2010, 977, 137-144. | 3.6 | 13 |
| 64 | Design and characterization of novel manganite perovskites Ba1-xBixTi1-xMnxO3 (0â‰¤xâ‰¤0.2). Ceramics International, 2020, 46, 26911-26922. | 4.8 | 13 |
| 65 | High temperature induced phase transitions in SrCaCoTeO6 and SrCaNiTeO6 ordered double perovskites. Polyhedron, 2016, 110, 119-124. | 2.2 | 12 |
| 66 | Đ¢hermodynamic properties of isobutane/mineral compressor oil and isobutane/mineral compressor oil/fullerenes C60 solutions. International Journal of Refrigeration, 2019, 106, 153-162. | 3.4 | 12 |
| 67 | Operation strategies guideline for packed bed thermal energy storage systems. International Journal of Energy Research, 2019, 43, 6211-6221. | 4.5 | 12 |
| 68 | Development of molten nitrate salt based nanofluids for thermal energy storage application: High thermal performance and long storage components life-time. AIP Conference Proceedings, 2019, , . | 0.4 | 11 |
| 69 | Enhanced inorganic salts stability using bentonite clay for high-performance and low-cost thermochemical energy storage. Journal of Energy Storage, 2022, 49, 104140. | 8.1 | 11 |
| 70 | Synthesis, structures and temperature-induced phase transitions of the Sr2Cd1â^'xCaxWO6 (0â©½xâ©½1) double perovskite tungsten oxides. Journal of Molecular Structure, 2009, 920, 196-201. | 3.6 | 10 |
| 71 | Round robin test on the measurement of the specific heat of solar salt. AIP Conference Proceedings, 2017, , . | 0.4 | 10 |
| 72 | Trimodal hierarchical nanoporous copper with tunable porosity prepared by dealloying Mg-Cu alloys of close-to-eutectic compositions. Applied Surface Science, 2019, 475, 748-753. | 6.1 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Synthesis of high temperature TES materials from silicates wastes for application in solar tower power plants. Solar Energy Materials and Solar Cells, 2020, 218, 110763. | 6.2 | 10 |
| 74 | Compact Thermal Actuation by Water and Flexible Hydrophobic Nanopore. ACS Nano, 2021, 15, 9048-9056. | 14.6 | 10 |
| 75 | Crystal growth and twinned crystal structure of Sr<sub>2</sub>CaWO<sub>6</sub>. Acta Crystallographica Section B: Structural Science, 2010, 66, 109-116. | 1.8 | 9 |
| 76 | A study of organic working fluids of an organic Rankine cycle for solar concentrating power plant. Applied Solar Energy (English Translation of Geliotekhnika), 2014, 50, 158-167. | 1.6 | 9 |
| 77 | Thermal emissivity spectra and structural phase transitions of the eutectic Mg-51%Zn alloy: A candidate for thermal energy storage. Journal of Alloys and Compounds, 2016, 684, 62-67. | 5.5 | 9 |
| 78 | Reversible Wetting in Nanopores for Thermal Expansivity Control: From Extreme Dilatation to Unprecedented Negative Thermal Expansion. Journal of Physical Chemistry C, 2017, 121, 11499-11507. | 3.1 | 7 |
| 79 | Effect of the M3+ cation size on the structural and high temperature phase transitions in Sr2 MSbO6 (M = Ln, Y) double perovskites. Polyhedron, 2017, 123, 265-276. | 2.2 | 6 |
| 80 | The Effect of Surface Entropy on the Heat of Non-Wetting Liquid Intrusion into Nanopores. Langmuir, 2021, 37, 4827-4835. | 3.5 | 6 |
| 81 | Crystal structures and temperature-induced phase transitions of , and of its transformation to. Journal of Molecular Structure, 2009, 933, 53-62. | 3.6 | 5 |
| 82 | Efficiency improvement of Mn2O3/Mn3O4 redox reaction by means of different operation strategies. AIP Conference Proceedings, 2019, , . | 0.4 | 5 |
| 83 | New Thermal Energy Storage Materials From Industrial Wastes: Compatibility of Steel Slag With the Most Common Heat Transfer Fluids. Journal of Solar Energy Engineering, Transactions of the ASME, 2015, 137, . | 1.8 | 4 |
| 84 | Rheological behaviour of eutectic nanofluids containing a low fraction of GO/TiO2 hybrid nanoparticles. Thermal Science and Engineering Progress, 2020, 20, 100753. | 2.7 | 4 |
| 85 | Development of a Kinetic Model for the Redox Reactions of Co2.4Ni0.6O4 and SiO2/Co2.4Ni0.6O4 Oxides for Thermochemical Energy Storage. Materials, 2022, 15, 3695. | 2.9 | 4 |
| 86 | Experimental validation of steel slag as thermal energy storage material in a 400 kWht prototype. AIP Conference Proceedings, 2019, , . | 0.4 | 3 |
| 87 | Investigation of Ca12Al14O33 Mayenite for hydration/dehydration thermochemical energy storage. Journal of Energy Storage, 2020, 31, 101647. | 8.1 | 3 |
| 88 | New insight into thermocline packed bed energy storage systems: Fast algorithm for sizing. Journal of Energy Storage, 2021, 44, 103419. | 8.1 | 3 |
| 89 | Solid packed bed thermal energy storage for ORC electric generation in Fresnel type CSP plants. AIP Conference Proceedings, 2018, , . | 0.4 | 2 |
| 90 | Development of a continuous solid solution with extended Red-Ox temperature range and unexpected high reaction enthalpies for thermochemical energy storage. AIP Conference Proceedings, 2019, , . | 0.4 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Development of a kinetic reaction model for reduction and oxidation of Si doped Mn2O3 for thermochemical energy storage in concentrated solar power plants. Journal of Energy Storage, 2021, 43, 103271. | 8.1 | 2 |
| 92 | Spray-graphitization against molten salts corrosion for concentrated solar power plants. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 93 | New Thermal Energy Storage Materials From Industrial Wastes: Compatibility of Steel Slags With the Most Common Heat Transfer Fluids. , 2014, , . | | 1 |
| 94 | Insight into the structureâ€“elastic property relationship of calcium silicate glasses: a multi-length scale approach. Physical Chemistry Chemical Physics, 2021, 23, 17973-17983. | 2.8 | 1 |
| 95 | Solving crystal structures using symmetry-mode collective coordinates. Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s328-s328. | 0.3 | 1 |
| 96 | Thermochemical heat storage for CSP using Mn2O3/Mn3O4: Effects of Si doping in cyclability improvement. AIP Conference Proceedings, 2020, , . | 0.4 | 1 |
| 97 | Investigation of the structural, optical and dielectric properties of La-doped BaTi0.97Y0.03O3 ceramic. Optical Materials, 2022, 129, 112488. | 3.6 | 1 |
| 98 | Post-Industrial Ceramics Compatibility With Heat Transfer Fluids for Low-Cost Thermal Energy Storage Applications in CSP. , 2012, , . | | 0 |
| 99 | Parametric and Thermal Management Optimization of a Steel Slag Based Packed Bed Heat Storage. , 2015, , . | | 0 |
| 100 | Experimental investigation of solid by-product as sensible heat storage material: Characterization and corrosion study. AIP Conference Proceedings, 2016, , . | 0.4 | 0 |
| 101 | Sensitivity of thermal emission spectroscopy for the study of structural phase transitions. Infrared Physics and Technology, 2018, 93, 16-19. | 2.9 | 0 |
| 102 | Structural and thermophysical characterization of potential natural rocks for medium temperature thermal energy storage in CSP plants. AIP Conference Proceedings, 2019, , . | 0.4 | 0 |
| 103 | Investigation of Mg21Cu4 eutectic alloy as new PCM for latent heat thermal energy storage. AIP Conference Proceedings, 2019, , . | 0.4 | 0 |
| 104 | Lesson learned during the designing and construction phases of the ORC-PLUS thermal energy storage system of 20 MWh. AIP Conference Proceedings, 2020, , . | 0.4 | 0 |
| 105 | The time-varying radiation applied in the temperature-sensitive reaction system stabilized with heat storage technology. Applied Energy, 2021, 283, 116377. | 10.1 | 0 |
| 106 | Experimental Characterization EAF Slag under Thermal Cycling as Sensible Thermal Energy Storage Material. , 2021, , . | | 0 |