**Ứng dụng của gốm trong đời sống**

Gốm là một nhóm vật liệu vô cùng đa dạng mà các chủng loại trải dài từ gốm truyền thống (như gốm và vật liệu chịu lửa) đến gốm kỹ thuật hiện đại (như alumina và silicon nitride) được tìm thấy trong các thiết bị điện tử, linh kiện hàng không vũ trụ và dụng cụ cắt.

Để hiểu rõ hơn Cục Thông tin KH&CN quốc gia xin giới thiệu một số bài nghiên cứu đã được xuất bản chính thức và các bài viết được chấp nhận đăng trên những cơ sở dữ liệu học thuật chính thống.



**1. Sciencedirect**

1. Preparation and characterization of NaNO3 shape-stabilized phase change materials (SS-PCMs) based on anorthite ceramic and cordierite ceramic for solar energy storage
Solar Energy Materials and Solar Cells 5 December 2022 Volume 251 (Cover date: March 2023) Article 112114
Jicheng Liu, Jiamei Xu, Tao Jiang
<https://www.sciencedirect.com/science/article/pii/S0927024822005311/pdfft?md5=e05081afb0ff2bbff460a9b0488feeac&pid=1-s2.0-S0927024822005311-main.pdf>

2. Ultra-high efficiency green-emitting LuAG: Ce phosphor-in-ceramic applied for high-power laser lighting
Journal of the European Ceramic Society 27 January 2023 Volume 43, Issue 8 (Cover date: July 2023) Pages 3563-3571
Minghui Zhou, Jun Sun, Shiqing Xu
<https://www.sciencedirect.com/science/article/pii/S0955221923000687/pdfft?md5=ef7e757013409c02fe2b4a6a0ed695d8&pid=1-s2.0-S0955221923000687-main.pdf>

3. Microstructure, mechanical property and bonding mechanism of SiC ceramic joint using a novel Y2Si2O7/Mullite glass-ceramic interlayer
Ceramics International 20 February 2023 Volume 49, Issue 11, Part A (Cover date: 1 June 2023) Pages 17885-17893
Liangbo Sun, Shuohao Wang, Jie Zhang
<https://www.sciencedirect.com/science/article/pii/S0272884223004467/pdfft?md5=322ca0b4ba7fc6a06ecee8e855c36a64&pid=1-s2.0-S0272884223004467-main.pdf>

4. Outcomes of Ceramic-on-Ceramic Bearing Total Hip Arthroplasty: A Minimum 10-Year Follow-Up Study
The Journal of Arthroplasty Available online 19 April 2023 In press, journal pre-proof
Malek O. Alshammari, Gianni De Petrillo, John Antoniou
<https://www.sciencedirect.com/science/article/pii/S0883540323003637/pdfft?md5=38282165e7f193fb8a4ab3331c99b77e&pid=1-s2.0-S0883540323003637-main.pdf>

5. Binder stabilization and rheology optimization for vat-photopolymerization 3D printing of silica-based ceramic mixtures
Journal of the European Ceramic Society 21 November 2022 Volume 43, Issue 4 (Cover date: April 2023) Pages 1649-1662
Basar Ozkan, Farzaneh Sameni, Ehsan Sabet
<https://www.sciencedirect.com/science/article/pii/S0955221922009074/pdfft?md5=bf7a103ee3b5337f7362ca6cb3968783&pid=1-s2.0-S0955221922009074-main.pdf>

6. Polysilazane-based high-temperature adhesives for the joints of amorphous SiBON ceramic composites
Journal of Manufacturing Processes 27 January 2023 Volume 88 (Cover date: 24 February 2023) Pages 220-231
Jing Xue, Lijuan Zhang, Guangwu Wen
<https://www.sciencedirect.com/science/article/pii/S1526612523000233/pdfft?md5=bb22e76e5ff5538e8b281d595eabda2a&pid=1-s2.0-S1526612523000233-main.pdf>

7. Formation mechanism and quantitative analysis of pores in Al2O3–ZrO2 ceramic different structures by laser additive manufacturing
Ceramics Internationalv31 January 2023vVolume 49, Issue 10 (Cover date: 15 May 2023)vPages 16099-16109
Zhiwen Liu, Changbao Ma, Fazhi Li
<https://www.sciencedirect.com/science/article/pii/S0272884223002183/pdfft?md5=c26c38e96b0867f5306404caee7d0ddc&pid=1-s2.0-S0272884223002183-main.pdf>

8. Metallization of ceramic coatings: Effect of cold gas spray parameters and roughness of the ceramic substrate on metallic layer properties
Surface and Coatings Technology 13 February 2023 Volume 458 (Cover date: 15 April 2023) Article 129322
W. Tillmann, O. Khalil, J. Zajaczkowski
<https://www.sciencedirect.com/science/article/pii/S025789722300097X/pdfft?md5=05fbf9438f820dbde97986f079794758&pid=1-s2.0-S025789722300097X-main.pdf>

9. An overview of research progress on ceramic-based membranes
Materials Today: Proceedings Available online 24 March 2023 In press, corrected proof
Prachiprava Pradhan, Ajit P Rathod, Soumya S Mohapatra
<https://www.sciencedirect.com/science/article/pii/S2214785323013421/pdfft?md5=8f18e2a90e3706e3271ca6e24c045a68&pid=1-s2.0-S2214785323013421-main.pdf>

10. Comparison of ceramic microfiltration and ultrafiltration membranes for the clarification of simulated sebacic acid fermentation broth
Journal of Environmental Chemical Engineering 29 March 2023 Volume 11, Issue 3 (Cover date: June 2023) Article 109820
Chengyu Nie, Wei Luan, Yiqun Fan
<https://www.sciencedirect.com/science/article/pii/S2213343723005596/pdfft?md5=7c006cd2985fa85f45757ba38b2598d2&pid=1-s2.0-S2213343723005596-main.pdf>

11. Can we use the translucency parameter to predict the CAD/CAM ceramic restoration aesthetic?
Dental Materials 24 February 2023 Volume 39, Issue 3 (Cover date: March 2023) Pages e1-e10
Jie Wang, Jiawei Yang, Xinquan Jiang
<https://www.sciencedirect.com/science/article/pii/S0109564123000210/pdfft?md5=f205bc9d5e9a7b5e58a649a9f1efcd8a&pid=1-s2.0-S0109564123000210-main.pdf>

12. Improved toughness and impact resistance of bio-inspired porcelain ceramic composites with shell-like structure
Construction and Building Materials 19 April 2023 Volume 384 (Cover date: 27 June 2023) Article 131399
Xinzi Zhong, Liyun Cao, Wenfang Niu
<https://www.sciencedirect.com/science/article/pii/S0950061823011121/pdfft?md5=0900931302f97ee13835ef43c3017577&pid=1-s2.0-S0950061823011121-main.pdf>

13. A comprehensive evaluation of vat-photopolymerization resins and alumina slurries for ceramic stereolithography
Ceramics International 22 October 2022 Volume 49, Issue 4 (Cover date: 15 February 2023) Pages 6440-6450
Tao Li, Haida Chen, Gong Wang
<https://www.sciencedirect.com/science/article/pii/S0272884222038238/pdfft?md5=17c995645152db7b7db8ec369f17b8f3&pid=1-s2.0-S0272884222038238-main.pdf>

14. The co-optimization of efficiency and emission bandwidth in GSAGG:Cr3+ NIR ceramic phosphors
Ceramics International Available online 5 April 2023 In press, corrected proof
Xianhui Wu, Zhaohua Luo, Jun Jiang
<https://www.sciencedirect.com/science/article/pii/S0272884223009082/pdfft?md5=fe7cfafc21a7c78bee056211dd26fcb1&pid=1-s2.0-S0272884223009082-main.pdf>

15. Preparation of building ceramic bricks using waste residue obtained by mutual treatment of electrolytic manganese residue and red mud
Ceramics International Available online 14 April 2023 In press, corrected proof
Jiang Zhang, Rui Li, Yu Zhang
<https://www.sciencedirect.com/science/article/pii/S0272884223010325/pdfft?md5=018a7d91d6d07402e022ca6c67bd221d&pid=1-s2.0-S0272884223010325-main.pdf>

16. Predicting formation of chemically graded metal/ceramic interfaces
Computational Materials Science 28 March 2023 Volume 224 (Cover date: May 2023) Article 112155
Prince Gollapalli, P. S. V. R. A. Kishor, Satyesh Kumar Yadav
<https://www.sciencedirect.com/science/article/pii/S0927025623001490/pdfft?md5=1ac93a955eab0866071e2de765af547a&pid=1-s2.0-S0927025623001490-main.pdf>

17. Janus ceramic membranes with asymmetric wettability for high-efficient microbubble aeration
Journal of Membrane Science 24 January 2023 Volume 671 (Cover date: 5 April 2023) Article 121418
Meng Zhao, Yucheng Liu, Rizhi Chen
<https://www.sciencedirect.com/science/article/pii/S0376738823000741/pdfft?md5=5a6f1ecffc18e061ca043103a00d6acc&pid=1-s2.0-S0376738823000741-main.pdf>

18. Experimental investigation on the performance of the asphalt mixture with ceramic fiber
Journal of Cleaner Production 12 December 2022 Volume 384 (Cover date: 15 January 2023)Article 135585
Fei Liu, Baofeng Pan, Changjun Zhou
<https://www.sciencedirect.com/science/article/pii/S0959652622051599/pdfft?md5=7d69c3da8860978601d54db66107f05d&pid=1-s2.0-S0959652622051599-main.pdf>

19. Investigation on the ballistic performance of the aluminum matrix composite armor with ceramic balls reinforcement under high velocity impact
Defence Technology Available online 28 January 2023 In press, corrected proof
Ali Ansari, Tayebeh Akbari, Masoomeh Rahimi Pishbijari
<https://www.sciencedirect.com/science/article/pii/S2214914723000156/pdfft?md5=6b138cee9b27d83a43fc6d60f85a31cd&pid=1-s2.0-S2214914723000156-main.pdf>

20. Low-temperature synthesis of ultrafine Cr,Mg-codoped Al2TiO5 nanocrystals as high-temperature green ceramic pigment
Ceramics International Available online 7 April 2023...
Si Cheng, Feng Jiang, Yongzhi Yu
<https://www.sciencedirect.com/science/article/pii/S0272884223009872/pdfft?md5=a251a0f369b17b19bccb64766d7fb816&pid=1-s2.0-S0272884223009872-main.pdf>

21. Penetration resistance of ceramic/PUE/GFRP multi-layered composite structure
Composite Structures 24 February 2023 Volume 311 (Cover date: 1 May 2023) Article 116822
Guangping Zou, Songyang Wu, Zhijun Zhang
<https://www.sciencedirect.com/science/article/pii/S0263822323001666/pdfft?md5=111c35f4b122b44365206def7abf1329&pid=1-s2.0-S0263822323001666-main.pdf>

22. Fabrication, testing & analysis of particulate ceramic matrix composite for automotive brake pad application
Materials Today: Proceedings Available online 24 February 2023 In press, corrected proof
Hitesh Bhakuni, A. V. Muley, Ruchika
<https://www.sciencedirect.com/science/article/pii/S2214785323005084/pdfft?md5=eadfbdbbcc24bc4ef250178fd4e10ab4&pid=1-s2.0-S2214785323005084-main.pdf>

23. Waste heat recovery enhancement in the CO2 chemical absorption process by hydrophobic-hydrophilic composite ceramic membranes
Journal of Membrane Science 29 March 2023 Volume 676 (Cover date: 15 June 2023) Article 121606
Qiufang Cui, Leonardo Gutierrez, Shuiping Yan
<https://www.sciencedirect.com/science/article/pii/S0376738823002624/pdfft?md5=d4a8561c6957b2dff49f503599221f67&pid=1-s2.0-S0376738823002624-main.pdf>

24. Mechanical-electromagnetic integration design of Al2O3/SiO2 ceramic cellular materials fabricated by digital light processing
Thin-Walled Structures 15 December 2022 Volume 183 (Cover date: February 2023) Article 110437
Danna Tang, Kai Yang, Haibin Tang
<https://www.sciencedirect.com/science/article/pii/S0263823122009892/pdfft?md5=f85f18612ae5713875b40bd43a6d32c3&pid=1-s2.0-S0263823122009892-main.pdf>

25. Novel spent bleaching earth industrial waste as low-cost ceramic membranes material: elaboration and characterization
Materials Today: Proceedings Available online 11 March 2023 In press, corrected proof
Aulia Rahma, Muthia Elma, Dwi Resa Lamandau
<https://www.sciencedirect.com/science/article/pii/S2214785323009549/pdfft?md5=de0f0ad753ea1ae8d4970c719c3b8d43&pid=1-s2.0-S2214785323009549-main.pdf>

26. A fault diagnosis method based on stiffness evaluation model for full ceramic ball bearings containing subsurface cracks
Engineering Failure Analysis 21 March 2023 Volume 148 (Cover date: June 2023) Article 107213
Tao Li, Huaitao Shi, Ke Zhang
<https://www.sciencedirect.com/science/article/pii/S135063072300167X/pdfft?md5=216e42b6dd9cbff70f4618c3c2b1a0db&pid=1-s2.0-S135063072300167X-main.pdf>

27. Influence of debinding parameter and nano-ZrO2 particles on the silica-based ceramic cores fabricated by stereolithography-based additive manufacturing
Ceramics International Available online 24 March 2023 In press, corrected proof
Yuhao Yin, Jiang Wang, Zhongming Ren
<https://www.sciencedirect.com/science/article/pii/S0272884223008210/pdfft?md5=c2dd50319426df85bb17185bef38df67&pid=1-s2.0-S0272884223008210-main.pdf>

28. Microstructure evolution and mechanical properties of the TiB2-TiC-SiC composite ceramic and Nb brazed joint
Journal of Manufacturing Processes 8 March 2023 Volume 92 (Cover date: 28 April 2023) Pages 179-188
Y. Wang, X. Y. Zheng, Z. W. Yang
<https://www.sciencedirect.com/science/article/pii/S1526612523001962/pdfft?md5=707fc2afdb6284ea23cadc1835ea6d62&pid=1-s2.0-S1526612523001962-main.pdf>

29. Organic-inorganic in-situ hybrid aluminum dihydrogen phosphate binder for enhancing tribocorrosion resistance of ceramic coatings
Colloids and Surfaces A: Physicochemical and Engineering Aspects 10 December 2022 Volume 658 (Cover date: 5 February 2023)Article 130765
Jianyu Wang, Meiping Wu, Yongwu Zhao
<https://www.sciencedirect.com/science/article/pii/S0927775722025201/pdfft?md5=79f2d9cca27c321423c3c14d10a96c1b&pid=1-s2.0-S0927775722025201-main.pdf>

30. 3D-printing of ceramic filaments with ductile metallic cores
Materials & Design 6 December 2022 Volume 225 (Cover date: January 2023) Article 111463
Qiaosong Cai, Sylvain Meille, Eduardo Saiz
<https://www.sciencedirect.com/science/article/pii/S0264127522010863/pdfft?md5=7313147bc6c6c7ec4b6a5c4d0b20b09a&pid=1-s2.0-S0264127522010863-main.pdf>

31. Flexible interconnected ceramic parts 3D printed by two-component material extrusion with water-soluble support structures
Journal of the European Ceramic Society Available online 1 April 2023 In press, corrected proof
René Wick-Joliat, Dirk Penner
<https://www.sciencedirect.com/science/article/pii/S0955221923002777/pdfft?md5=2c1176fc7cb685dc88f154be860a2fdd&pid=1-s2.0-S0955221923002777-main.pdf>

32. Spark plasma sintered graphene/copper calcium titanate ceramic composites with negative permittivity and enhanced thermal conductivity
Ceramics International 2 February 2023 Volume 49, Issue 10 (Cover date: 15 May 2023)Pages 16149-16155
Chunyuan Deng, Yuyan Li, Runhua Fan
<https://www.sciencedirect.com/science/article/pii/S0272884223002328/pdfft?md5=cd9364ac6993eb2c48cee7de8f9b444a&pid=1-s2.0-S0272884223002328-main.pdf>

33. Toughness mechanism and plastic insensitivity of submicron second phase Ta in a novel Ta–Hf6Ta2O17 composite ceramic
Ceramics International 17 September 2022 Volume 49, Issue 2 (Cover date: 15 January 2023) Pages 1932-1939
Z. Y. Tan, X. Wu, W. Zhu
<https://www.sciencedirect.com/science/article/pii/S0272884222033363/pdfft?md5=96f93e17a923a1b1e107a1ad5e7c9fa2&pid=1-s2.0-S0272884222033363-main.pdf>

34. A new rare-earth orthovanadate microwave dielectric ceramic: ErVO4
Materials Chemistry and Physics 15 March 2023 Volume 301 (Cover date: 1 June 2023)Article 127630
Ruijia Yang, Li Chen, Bo Li
<https://www.sciencedirect.com/science/article/pii/S0254058423003383/pdfft?md5=85bb59ab9bd9cfcb24df12af44d31547&pid=1-s2.0-S0254058423003383-main.pdf>

35. Experimental study and modeling analysis of strength properties of sulfur-based polymers of waste ceramic fine aggregates
Materials Chemistry and Physics 10 March 2023 Volume 301 (Cover date: 1 June 2023) Article 127614
Jie Liu, Changwang Yan, Pengju Li
<https://www.sciencedirect.com/science/article/pii/S025405842300322X/pdfft?md5=fe40fc47ea4aad96b773642c68728613&pid=1-s2.0-S025405842300322X-main.pdf>

36. Enhancing the thermal insulation properties of polymer-derived SiCN(O) ceramic aerogels with a polysilazane-precursor design
Ceramics International 30 January 2023 Volume 49, Issue 10 (Cover date: 15 May 2023) Pages 15829-15841
Wei Wang, Le Pang, Huimin Qi
<https://www.sciencedirect.com/science/article/pii/S0272884223001979/pdfft?md5=802b7138bd3cd6e9a33c701c2269fa8c&pid=1-s2.0-S0272884223001979-main.pdf>

37. CFD-guided patterning of tubular ceramic membrane surface by stereolithography: Optimizing morphology at the mesoscale for improved hydrodynamic control of membrane fouling
Journal of Membrane Science 31 January 2023 Volume 672 (Cover date: 15 April 2023) Article 121435
Cyril Chevarin, Xunhao Wang, André Ayral
<https://www.sciencedirect.com/science/article/pii/S0376738823000911/pdfft?md5=2cead1442f289fb56bd5cf5bf04b7636&pid=1-s2.0-S0376738823000911-main.pdf>

38. High quality of LiMg0.9Zn0.06Ni0.04PO4-TiO2 microwave ceramic and its application for 5G dielectric waveguide bandpass filter
Materials Today Communications 30 January 2023 Volume 35 (Cover date: June 2023) Article 105500
Long Chen, Huan Liu, Kaixin Song
<https://www.sciencedirect.com/science/article/pii/S2352492823001903/pdfft?md5=fd8d1ddc2587ba1e95ee52a5d5c6a972&pid=1-s2.0-S2352492823001903-main.pdf>

39. Ceramic production in the Tiwanaku sphere: LA-ICP-MS in the Moquegua, Titicaca, and Cochabamba regions
Journal of Archaeological Science: Reports Available online 21 March 2023 In press, corrected proof Article 103874
Patrick Ryan Williams, Nicola Sharratt, Ashley Vance
<https://www.sciencedirect.com/science/article/pii/S2352409X23000494/pdfft?md5=a1871876362c9ecd2ffe37237d403908&pid=1-s2.0-S2352409X23000494-main.pdf>

40. Zr-doped TiO2 ceramic nanofibrous membranes for enhancing photocatalytic organic pollutants degradation and antibacterial activity
Colloids and Surfaces A: Physicochemical and Engineering Aspects 3 March 2023 Volume 665 (Cover date: 20 May 2023) Article 131231
Di Zhang, Hongli Hu, LinGe Wang
<https://www.sciencedirect.com/science/article/pii/S0927775723003151/pdfft?md5=d40bcca750dc9ae7da2e7dcbeea96695&pid=1-s2.0-S0927775723003151-main.pdf>

41. Intermetallic compound MxSi modified SiCO ceramic microspheres derived from precursor emulsion for electromagnetic wave absorption
Journal of Alloys and Compounds 24 March 2023 Volume 949 (Cover date: 15 July 2023) Article 169798
Cheng Zhong, Yongzhao Hou, Lijuan Zhang
<https://www.sciencedirect.com/science/article/pii/S0925838823011015/pdfft?md5=bc601e127346832419c7a3ea277af79c&pid=1-s2.0-S0925838823011015-main.pdf>

    Nguồn: Cục Thông tin khoa học và công nghệ quốc gia