**Vật liệu nha khoa tiên tiến**

(Cập nhật đến ngày 05/5/2023)

Nha khoa là một khoa học nghiên cứu, chẩn định, chữa và phòng chống các bệnh về răng và các bộ phận khác trong miệng như xương hàm, nướu, và mạc mô trong miệng, gồm luôn cả các phần gần xương mặt và má. Nha khoa được xem là ngành y tế quan trọng trong việc cải tiến sức khỏe con người. Với sự tiến bộ của khoa học vật liệu nha khoa ,đang từng bước cải tiến và khắc phục nhược điểm của composite để đưa ra thế hệ vật liệu composite mới tốt hơn.

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. Springer**

1. In vitro evaluation of dental color stability using various aesthetic restorative materials after immersion in different drinks
Tavga Mustafa Faris, Rukhosh Hasan Abdulrahim, Mohammed Abdalla Mahmood… in BMC Oral Health (2023)
[https://link.springer.com/content/pdf/10.1186%2Fs12903-023-02719-3.pdf?pdf=core](https://link.springer.com/content/pdf/10.1186/s12903-023-02719-3.pdf?pdf=core)

2. The anti-adherence activity and bactericidal effect of GO against Streptococcus mutans from Iraqi dental patients
Rana Kadhim Mohammed, Ali Attallah Ibrahim in Odontology (2023)
[https://link.springer.com/content/pdf/10.1007%2Fs10266-023-00791-3.pdf?pdf=core](https://link.springer.com/content/pdf/10.1007/s10266-023-00791-3.pdf?pdf=core)

3. The Osteogenic Role of Biomaterials Combined with Human-Derived Dental Stem Cells in Bone Tissue Regeneration
Duaa Abuarqoub, Laith S. Theeb… in Tissue Engineering and Regenerative Medici… (2023)
[https://link.springer.com/content/pdf/10.1007%2Fs13770-022-00514-9.pdf?pdf=core](https://link.springer.com/content/pdf/10.1007/s13770-022-00514-9.pdf?pdf=core)

4. Impact of virtual supervised tooth brushing on caries experience and quality of life among primary school children: study protocol for a randomized controlled trial
Haya Alayadi, Areej Alsiwat, Haifa AlAkeel, Munirah Alaskar, Maram Alwadi… in Trials (2023)
[https://link.springer.com/content/pdf/10.1186%2Fs13063-023-07111-8.pdf?pdf=core](https://link.springer.com/content/pdf/10.1186/s13063-023-07111-8.pdf?pdf=core)

5. A Review on Zeolites and Their Applications in Dentistry
Shantanu Deshpande, Supriya Kheur, Mohit Kheur… in Current Oral Health Reports (2023)
[https://link.springer.com/content/pdf/10.1007%2Fs40496-023-00330-7.pdf?pdf=core](https://link.springer.com/content/pdf/10.1007/s40496-023-00330-7.pdf?pdf=core)

6. Cytotoxicity and reactive oxygen species production induced by different co-monomer eluted from nanohybrid dental composites
En-Shi Jiang, Wonjoon Moon, Bum-Soon Lim, Juhea Chang, Shin Hye Chung in BMC Oral Health (2023)
[https://link.springer.com/content/pdf/10.1186%2Fs12903-023-02710-y.pdf?pdf=core](https://link.springer.com/content/pdf/10.1186/s12903-023-02710-y.pdf?pdf=core)

7. A smart home dental care system: integration of deep learning, image sensors, and mobile controller
Dogun Kim, Jaeho Choi, Sangyoon Ahn… in Journal of Ambient Intelligence and Humani… (2023)
[https://link.springer.com/content/pdf/10.1007%2Fs12652-021-03366-8.pdf?pdf=core](https://link.springer.com/content/pdf/10.1007/s12652-021-03366-8.pdf?pdf=core)

8. Improving the reconstruction of dental occlusion using a reconstructed-based identical matrix point technique
Sukumaran Anil, Sajith Vellappally… in Journal of Ambient Intelligence and Humani… (2023)
[https://link.springer.com/content/pdf/10.1007%2Fs12652-021-03404-5.pdf?pdf=core](https://link.springer.com/content/pdf/10.1007/s12652-021-03404-5.pdf?pdf=core)

**1. Sciencedirect**

1. Next-generation biomaterials for dental pulp tissue immunomodulation
Dental Materials 7 March 2023 Volume 39, Issue 4 (Cover date: April 2023) Pages 333-349
Renan Dal-Fabbro, W. Benton Swanson, Marco C. Bottino
<https://www.sciencedirect.com/science//pii/S0109564123000647/pdfft?md5=d582c6ba728bd14dadf438e23566550d&pid=1-s2.0-S0109564123000647-main.pdf>

2. Smart dental materials for antimicrobial applications
Bioactive Materials 9 December 2022 Volume 24 (Cover date: June 2023) Pages 1-19
Carolina Montoya, Lina Roldan, Santiago Orrego
<https://www.sciencedirect.com/science//pii/S2452199X2200490X/pdfft?md5=546d502a5e20155767d5bbb2b2d33185&pid=1-s2.0-S2452199X2200490X-main.pdf>

3. Novel bioactive dental restorations to inhibit secondary caries in enamel and dentin under oral biofilms
Journal of Dentistry 1 April 2023 Volume 133 (Cover date: June 2023) 104497
Wen Zhou, Hong Chen, Hockin H. K. Xu
 [https://www.sciencedirect.com/science//pii/S0300571223000830/pdfft?md5=22e5ac039f62ea49f70baffc6d99f2b3&pid=1-s2.0-S0300571223000830-main.pdf](https://www.sciencedirect.com/science/pii/S0300571223000830/pdfft?md5=22e5ac039f62ea49f70baffc6d99f2b3&pid=1-s2.0-S0300571223000830-main.pdf)

4. Bench-to-bedside: Feasibility of nano-engineered and drug-delivery biomaterials for bone-anchored implants and periodontal applications
Materials Today Bio 30 December 2022 Volume 18 (Cover date: February 2023) 100540
Marcel F. Kunrath, Furqan A. Shah, Christer Dahlin
<https://www.sciencedirect.com/science//pii/S2590006422003386/pdfft?md5=6c887e8181be75979b828686de0f992a&pid=1-s2.0-S2590006422003386-main.pdf>

5. A review on surface modification of dental implants among various implant materials
Materials Today: Proceedings 23 December 2022 Volume 72, Part 6 (Cover date: 2023) Pages 3209-3215
Nikita Jambhulkar, Santosh Jaju, Barkha Bhoneja
<https://www.sciencedirect.com/science//pii/S2214785322073989/pdfft?md5=f01d0dd39597c3be981b1dbe7bb0427e&pid=1-s2.0-S2214785322073989-main.pdf>

6. Preparation of human primary macrophages to study the polarization from monocyte-derived macrophages to pro- or anti-inflammatory macrophages at biomaterial interface in vitro
Journal of Dental Sciences Available online 13 February 2023 In press, corrected proof
Ludovica Parisi, Massimiliano Giovanni Bianchi, Simone Lumetti
<https://www.sciencedirect.com/science//pii/S199179022300020X/pdfft?md5=e4bb4433622d1bbe0cf1a41ebf73b44b&pid=1-s2.0-S199179022300020X-main.pdf>

7. Biofabrication of engineered dento-alveolar tissue
Biomaterials Advances 8 March 2023 Volume 148 (Cover date: May 2023) 213371
Mostafa Ez, EldeenLorenzo Moroni, Carlos Mota
<https://www.sciencedirect.com/science//pii/S2772950823000948/pdfft?md5=1237c4245975bce590724bcb172bd121&pid=1-s2.0-S2772950823000948-main.pdf>

8. A comprehensive review: Physical, mechanical, and tribological characterization of dental resin composite materials
Tribology International 21 November 2022 Volume 179 (Cover date: January 2023) 108102
Ramkumar Yadav, Hwalim Lee, Hae-Hyoung Lee
<https://www.sciencedirect.com/science//pii/S0301679X22006739/pdfft?md5=9d3e8645d7ecb9cd07171a5054332388&pid=1-s2.0-S0301679X22006739-main.pdf>

9. Epigallocatechin-3-gallate improves the biocompatibility of bone substitutes in dental pulp stem cells
Annals of Anatomy - Anatomischer Anzeiger 28 December 2022 Volume 246 (Cover date: February 2023) 152045
Priscilla Peláez-Cruz, Pia López Jornet, Eduardo Pons-Fuster López
<https://www.sciencedirect.com/science//pii/S0940960222001601/pdfft?md5=d1b7b68642d49652c812ff29115c42bf&pid=1-s2.0-S0940960222001601-main.pdf>

10. Effect of Cerium on Mechanical, Metallurgical and Biomedical Properties of NiCrMoB Dental Alloy
Journal of Materials Research and Technology Available online 20 April 2023 In press, journal pre-proof
Ali Haider, Syed Husain Imran Jaffery, Xiubing Jing
<https://www.sciencedirect.com/science//pii/S2238785423008475/pdfft?md5=dd80352dd3e9bdf2bf3e8bdd655b554f&pid=1-s2.0-S2238785423008475-main.pdf>

11. Fiber-reinforced composites in dentistry – An insight into adhesion aspects of the material and the restored tooth construct
Dental Materials 3 January 2023 Volume 39, Issue 2 (Cover date: February 2023) Pages 141-151
Aftab Ahmed Khan, Muhammad Sohail Zafar, Pekka Kalevi Vallittu
<https://www.sciencedirect.com/science//pii/S010956412200344X/pdfft?md5=70628882fe88556f034a5df3a0fae775&pid=1-s2.0-S010956412200344X-main.pdf>

12. Glass-ceramics in dentistry: Fundamentals, technologies, experimental techniques, applications, and open issues
Progress in Materials Science 30 September 2022 Volume 132 (Cover date: February 2023) 101023
Maziar Montazerian, Francesco Baino, John C. Mauro
<https://www.sciencedirect.com/science//pii/S0079642522001049/pdfft?md5=198c58d0a03eb5fb7d19295d585493c8&pid=1-s2.0-S0079642522001049-main.pdf>

13. Multifunctional and biodegradable methacrylated gelatin/Aloe vera nanofibers for endodontic disinfection and immunomodulation
Biomaterials Advances 14 April 2023 Volume 150 (Cover date: July 2023) 213427
Sharon S. Namazi, Abdel H. Mahmoud, Marco C. Bottino
<https://www.sciencedirect.com/science//pii/S2772950823001504/pdfft?md5=e64e196e4031cd7f69c8fca128e41cdc&pid=1-s2.0-S2772950823001504-main.pdf>

14. Characterization of a bioscaffold containing polysaccharide acemannan and native collagen for pulp tissue regeneration
International Journal of Biological Macromolecules 8 November 2022 Volume 225 (Cover date: 15 January 2023) Pages 286-297
Aye Aye Thant, Vithaya Ruangpornvisuti, Pasutha Thunyakitpisal
<https://www.sciencedirect.com/science//pii/S0141813022025582/pdfft?md5=07c880ba2cc1a876cad55abccbf7159f&pid=1-s2.0-S0141813022025582-main.pdf>

15. Tissue engineering at the dentin-pulp interface using human treated dentin scaffolds conditioned with DMP1 or BMP2 plasmid DNA-carrying calcium phosphate nanops
Acta Biomaterialia 26 January 2023 Volume 159 (Cover date: 15 March 202 3) Pages 156-172
F Machla, V Sokolova, A Bakopoulou
<https://www.sciencedirect.com/science//pii/S1742706123000508/pdfft?md5=29e4ab851a6a93447853123137344201&pid=1-s2.0-S1742706123000508-main.pdf>

16. Advances of multifunctional hydrogels for periodontal disease
Smart Materials in Medicine 9 February 2023 Volume 4 (Cover date: 2023)Pages 460-467
Yihung Lee, Yifan Gou, Huixu Xie
<https://www.sciencedirect.com/science//pii/S2590183423000054/pdfft?md5=9bb9ecedbdc9be4e0959efad06958f19&pid=1-s2.0-S2590183423000054-main.pdf>

17. A shear-thinning, ROS-scavenging hydrogel combined with dental pulp stem cells promotes spinal cord repair by inhibiting ferroptosis
Bioactive Materials 11 October 2022 Volume 22 (Cover date: April 2023) Pages 274-290
Yibo Ying, Zhiyang Huang, Zhouguang Wang
<https://www.sciencedirect.com/science//pii/S2452199X22004157/pdfft?md5=fef2b4f4b6c006d94cc52c07644c33f8&pid=1-s2.0-S2452199X22004157-main.pdf>

18. Biomimetic mineralized collagen scaffolds enhancing odontogenic differentiation of hDPSCs and dentin regeneration through modulating mechanical microenvironment
Chemical Engineering Journal 10 February 2023 Volume 460 (Cover date: 15 March 2023) 141800
Wenjing Jin, Haiyan Wu, Zhijian Xie
<https://www.sciencedirect.com/science//pii/S1385894723005314/pdfft?md5=1939f6caf2464f659692d8bdf88c4fea&pid=1-s2.0-S1385894723005314-main.pdf>

19. Investigation and assessment for specific volume of Gutta-Percha as a biomaterial in RCT
Materials Today: Proceedings 13 September 2022 Volume 72, Part 3 (Cover date: 2023) Pages 741-747
Avinash GalandeS, S. Pachpore, Mandar M. Lele
<https://www.sciencedirect.com/science//pii/S2214785322057339/pdfft?md5=b66a2d5e1fffef6453de2ba14de53c1b&pid=1-s2.0-S2214785322057339-main.pdf>

20. ZIF-8 as a protein delivery system enhances the application of dental pulp stem cell lysate in anti-photoaging therapy
Materials Today Advances 17 December 2022 Volume 17 (Cover date: March 2023) 100336
Xingxiang Duan, Yu Luo, Qingsong Ye
<https://www.sciencedirect.com/science//pii/S2590049822001321/pdfft?md5=871e2bceeb0ef6eb025cf66eaf168a12&pid=1-s2.0-S2590049822001321-main.pdf>

21. Thermal, chemical, and structural investigation of the usability of Cs/nHAp-ZnO/Glutaraldehyde polymer matrix composite in potential biomaterial applications
Arabian Journal of Chemistry 23 March 2023 Volume 16, Issue 7 (Cover date: July 2023) 104838
Oktay Yigit
<https://www.sciencedirect.com/science//pii/S1878535223003003/pdfft?md5=b458c891cb6473457aff401becb4b1d1&pid=1-s2.0-S1878535223003003-main.pdf>

22. Experimental and numerical responses of fibroblast and epithelial cells to the frequency of electric toothbrush
Journal of the Mechanical Behavior of Biomedical Materials 4 February 2023 Volume 140 (Cover date: April 2023) 105697
Ashkan Heydarian, Parvin Darvishi, Hamidreza Mortazavy Beni
<https://www.sciencedirect.com/science//pii/S1751616123000504/pdfft?md5=f31279664cc73c7fe55a39d503e8505e&pid=1-s2.0-S1751616123000504-main.pdf>

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