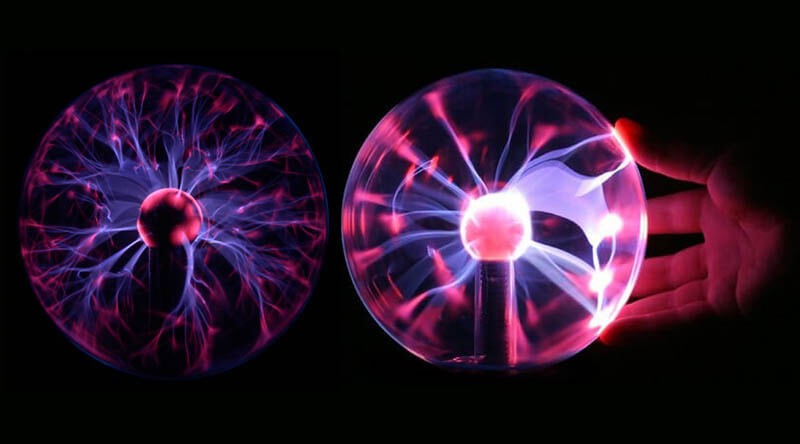
**Công nghệ plasma - ứng dụng trong y tế và đời sống**

Công nghệ Plasma (Plasmacluster Ion) là công nghệ hiện đại, tiên tiến bậc nhất hiện nay. Đây là công nghệ có khả năng diệt sạch virus, vi khuẩn, nấm mốc, khử mùi hôi… một cách hiệu quả dựa trên nguyên lý hoạt động của các Ion.

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. In-depth analysis of the effect of catalysts on plasma technologies for treatment of various wastes  
Journal of Environmental Management 15 June 2023 Volume 344 (Cover date: 15 October 2023) Article 118335  
Kangana P. Bhatt, Sanjay Patel, Rajesh N. Patel  
[https://www.sciencedirect.com/science//pii/S0301479723011234/pdfft?md5=da4574c86331b0555b2564468a8b7b61&pid=1-s2.0-S0301479723011234-main.pdf](https://www.sciencedirect.com/science/pii/S0301479723011234/pdfft?md5=da4574c86331b0555b2564468a8b7b61&pid=1-s2.0-S0301479723011234-main.pdf)

2. Algae processing by plasma discharge technology: A review  
Algal Research 20 January 2023 Volume 70 (Cover date: March 2023) Article 102983  
Mostafa M. El-Sheekh, Mohamed A. Abd Al-Halim, Soha A. Mohammed  
[https://www.sciencedirect.com/science//pii/S2211926423000164/pdfft?md5=354ad7706f1c87296d322c9c20d65cbc&pid=1-s2.0-S2211926423000164-main.pdf](https://www.sciencedirect.com/science/pii/S2211926423000164/pdfft?md5=354ad7706f1c87296d322c9c20d65cbc&pid=1-s2.0-S2211926423000164-main.pdf)

3. Comprehensive study of health effects of plasma technology occupational environment: Exposure to high frequency and intensity noise and toxic gases  
Environmental Research 29 October 2022 Volume 216, Part 3 (Cover date: 1 January 2023) Article 114691  
Gennadiy Onishchenko, Natalia Nikolayeva, Aristidis Tsatsakis  
[https://www.sciencedirect.com/science//pii/S0013935122020187/pdfft?md5=c9327f0751948b79dd4dbf8d7286c2d0&pid=1-s2.0-S0013935122020187-main.pdf](https://www.sciencedirect.com/science/pii/S0013935122020187/pdfft?md5=c9327f0751948b79dd4dbf8d7286c2d0&pid=1-s2.0-S0013935122020187-main.pdf)

4. The impact of cold plasma innovative technology on quality and safety of refrigerated hamburger: Analysis of microbial safety and physicochemical properties  
International Journal of Food Microbiology 30 December 2022 Volume 388 (Cover date: 2 March 2023) Article 110066  
Sahar Roshanak, Mohammad Maleki, Fakhri Shahidi  
[https://www.sciencedirect.com/science//pii/S0168160522005402/pdfft?md5=d0704d39f8897645ecc4eb9b2267d54e&pid=1-s2.0-S0168160522005402-main.pdf](https://www.sciencedirect.com/science/pii/S0168160522005402/pdfft?md5=d0704d39f8897645ecc4eb9b2267d54e&pid=1-s2.0-S0168160522005402-main.pdf)

5. Transformation by plasma technology of cisplatin found in hospital's wastewaters into platinum-containing nanoparticles  
Chemical Engineering Journal Advances 9 December 2022 Volume 13 (Cover date: 15 March 2023) Article 100435  
Jean-François Sauvageau, Natalia Milaniak, Marc-André Fortin  
[https://www.sciencedirect.com/science//pii/S2666821122001958/pdfft?md5=4a0ccd22996c828e49c315bd64b1d655&pid=1-s2.0-S2666821122001958-main.pdf](https://www.sciencedirect.com/science/pii/S2666821122001958/pdfft?md5=4a0ccd22996c828e49c315bd64b1d655&pid=1-s2.0-S2666821122001958-main.pdf)

6. Surface modification of biomedical metals by double glow plasma surface alloying technology: A review of recent advances  
Journal of Materials Research and Technology 6 April 2023 Volume 24 (Cover date: May–June 2023) Pages 3423-3452  
Meng Zhang, Liu Zhu, Yucheng Wu  
[https://www.sciencedirect.com/science//pii/S223878542300697X/pdfft?md5=552b7d8119b61ae13236fecb28c49969&pid=1-s2.0-S223878542300697X-main.pdf](https://www.sciencedirect.com/science/pii/S223878542300697X/pdfft?md5=552b7d8119b61ae13236fecb28c49969&pid=1-s2.0-S223878542300697X-main.pdf)

7. High-temperature oxidation and tribological behaviors of WTaVCr alloy coating prepared by double glow plasma surface alloying technology  
Surface and Coatings Technology 22 April 2023 Volume 464 (Cover date: 15 July 2023) Article 129429  
Lingmin La, Lingling Wang, Lin Qin  
[https://www.sciencedirect.com/science//pii/S0257897223002049/pdfft?md5=8009fb1925ecb7a9d815a610b2939c30&pid=1-s2.0-S0257897223002049-main.pdf](https://www.sciencedirect.com/science/pii/S0257897223002049/pdfft?md5=8009fb1925ecb7a9d815a610b2939c30&pid=1-s2.0-S0257897223002049-main.pdf)

8. Medical gas plasma technology: Roadmap on cancer treatment and immunotherapy  
Redox Biology Available online 27 June 2023 In press, journal pre-proof Article 102798  
Sander Bekeschus  
[https://www.sciencedirect.com/science//pii/S2213231723001994/pdfft?md5=18976689bae8199b1e955f59862219c8&pid=1-s2.0-S2213231723001994-main.pdf](https://www.sciencedirect.com/science/pii/S2213231723001994/pdfft?md5=18976689bae8199b1e955f59862219c8&pid=1-s2.0-S2213231723001994-main.pdf)

9. Advances of non-thermal plasma discharge technology in degrading recalcitrant wastewater pollutants. A comprehensive review  
Chemosphere 6 February 2023 Volume 320 (Cover date: April 2023) Article 138061  
Kwasi Kyere-Yeboah, Ikenna Kemba Bique, Xiu-chen Qiao  
[https://www.sciencedirect.com/science//pii/S0045653523003284/pdfft?md5=3c4360f2e1f8bdb996423653a6245c19&pid=1-s2.0-S0045653523003284-main.pdf](https://www.sciencedirect.com/science/pii/S0045653523003284/pdfft?md5=3c4360f2e1f8bdb996423653a6245c19&pid=1-s2.0-S0045653523003284-main.pdf)

10. Preparation of cellulose@amidoxime by plasma-induced grafting technology and its potential application for uranium extraction  
Applied Surface Science Available online 26 June 2023 In press, journal pre-proof Article 157883  
Supeng Yu, Chengwei Sun, Changlun Chen  
[https://www.sciencedirect.com/science//pii/S0169433223015623/pdfft?md5=b3184fb06eae1908aa24c8924ebbcce4&pid=1-s2.0-S0169433223015623-main.pdf](https://www.sciencedirect.com/science/pii/S0169433223015623/pdfft?md5=b3184fb06eae1908aa24c8924ebbcce4&pid=1-s2.0-S0169433223015623-main.pdf)

11. Cold plasma technology: Applications in improving edible films and food packaging  
Food Packaging and Shelf Life 20 May 2023 Volume 37 (Cover date: June 2023) Article 101087  
Iraj Karimi Sani, Leila Aminoleslami, Behrouz Kazemzadeh  
[https://www.sciencedirect.com/science//pii/S2214289423000649/pdfft?md5=3b07ddbc1c3a7becb796bda9be7bea04&pid=1-s2.0-S2214289423000649-main.pdf](https://www.sciencedirect.com/science/pii/S2214289423000649/pdfft?md5=3b07ddbc1c3a7becb796bda9be7bea04&pid=1-s2.0-S2214289423000649-main.pdf)

12. Efficacy of cold plasma technology on the constituents of plant-based food products: Principles, current applications, and future potentials  
Food Research International 2 June 2023 Volume 172 (Cover date: October 2023) Article 113079  
Manolya Eser Oner, Busra Gultekin Subasi, Esra Capanoglu  
<https://www.sciencedirect.com/science/article/pii/S0963996923006245/pdfft?md5=6d4c61018c9f4dcdcbce810cc76e1093&pid=1-s2.0-S0963996923006245-main.pdf>

13. Cold plasma technology for controlling toxigenic fungi and mycotoxins in food  
Current Opinion in Food Science 9 May 2023 Volume 52 (Cover date: August 2023) Article 101045  
Naiara H Neuenfeldt, Lhwan P Silva, Liliana O Rocha  
<https://www.sciencedirect.com/science/article/pii/S2214799323000590/pdfft?md5=1b144898dbed3de79ab9904ca809b6e3&pid=1-s2.0-S2214799323000590-main.pdf>

14. Microstructure evolution and properties of Fe-Ni-Cr-Co-Mo-W high-entropy alloy coatings by plasma surface alloying technology  
Surface and Coatings Technology 20 June 2023 Volume 467 (Cover date: 25 August 2023) Article 129732  
Jijie Yang, Chenglei Wang, Hong Tan  
<https://www.sciencedirect.com/science/article/pii/S0257897223005078/pdfft?md5=be96903b78494c2b89fa290cc1bfa38b&pid=1-s2.0-S0257897223005078-main.pdf>

15. Benchmarking plasma and electrolysis decomposition technologies for ammonia to power generation  
Energy Conversion and Management 18 May 2023 Volume 288 (Cover date: 15 July 2023) Article 117166  
Peng Peng, Ji Su, Hanna Breunig  
<https://www.sciencedirect.com/science/article/pii/S0196890423005125/pdfft?md5=a21b94c2209f31ff19ee73479f192c61&pid=1-s2.0-S0196890423005125-main.pdf>

16. The use of plasma technologies to optimize fuel combustion processes and reduce emissions of harmful substances  
Energy 3 May 2023 Volume 277 (Cover date: 15 August 2023) Article 127635  
Saltanat Bolegenova, Аliya Askarova, Bolat Mamedov  
<https://www.sciencedirect.com/science/article/pii/S0360544223010290/pdfft?md5=874bff657fe619a391a61ce60b11be44&pid=1-s2.0-S0360544223010290-main.pdf>

17. Intensified performance of methane dry reforming based on non-thermal plasma technology: Recent progress and key challenges  
Fuel Processing Technology 30 March 2023 Volume 245 (Cover date: 15 June 2023) Article 107748  
Muhammad Irfan MalikInès Esma Achouri, François Gitzhofer  
<https://www.sciencedirect.com/science/article/pii/S0378382023000966/pdfft?md5=b95d510ab1fb8f1d1d67a9de1ecdca19&pid=1-s2.0-S0378382023000966-main.pdf>

18. The mechanical properties and wear resistance of Hf-Ta-N coatings prepared by double glow plasma alloying technology  
Ceramics International 19 November 2022  Volume 49, Issue 6 (Cover date: 15 March 2023) Pages 9956-9966  
Kai Zang, Xiping He, Yingdong Song  
<https://www.sciencedirect.com/science/article/pii/S0272884222041967/pdfft?md5=06b7ffe2f1c1f05277f50747c26d4a8a&pid=1-s2.0-S0272884222041967-main.pdf>

19. Probing the impact of sustainable emerging sonication and DBD plasma technologies on the quality of wheat sprouts juice  
Ultrasonics Sonochemistry 7 December 2022 Volume 92 (Cover date: January 2023) Article 106257  
Muhammad Faisal Manzoor, Abid Hussain, Jose Manuel Lorenzo  
<https://www.sciencedirect.com/science/article/pii/S1350417722003534/pdfft?md5=b2533e6aa60ac19607a0531d55798cb9&pid=1-s2.0-S1350417722003534-main.pdf>

20. Exploring thermal-plasma spraying technology for advanced aluminum-based materials  
Powder Technology Available online 14 June 2023 In press, journal pre-proof Article 118735  
Khashayar Khanlari, Inès Esma Achouri, Francois Gitzhofer  
<https://www.sciencedirect.com/science/article/pii/S0032591023005193/pdfft?md5=0405add859e02e847840c35aa7280407&pid=1-s2.0-S0032591023005193-main.pdf>

21. Degradation of trichloroethylene by double dielectric barrier discharge (DDBD) plasma technology: Performance, product analysis and acute biotoxicity assessment  
Chemosphere 12 April 2023 Volume 329 (Cover date: July 2023) Article 138651  
Xu-Rui Hu, Yong-Chao Wang, Ji-Guang Deng  
<https://www.sciencedirect.com/science/article/pii/S0045653523009189/pdfft?md5=1966d0607cf3fdd4580b7b60daa4643e&pid=1-s2.0-S0045653523009189-main.pdf>

22. Inactivation of pectinmethylesterase in fresh orange juice by cold atmospheric plasma technology: A kinetic study  
Innovative Food Science & Emerging Technologies 8 April 2023 Volume 86 (Cover date: June 2023) Article 103361  
Varvara Andreou, Marianna Giannoglou, George Katsaros  
<https://www.sciencedirect.com/science/article/pii/S1466856423000954/pdfft?md5=0d278abaa2f429164ef5349be52e5d9e&pid=1-s2.0-S1466856423000954-main.pdf>

23. Eliminating ciprofloxacin antibiotic contamination from water with a novel submerged thermal plasma technology  
Chemosphere 21 March 2023 Volume 326 (Cover date: June 2023) Article 138470  
Nanditta Nandy, Amarnath Pasupathi, Santhanamoorthi Nachimuthu  
<https://www.sciencedirect.com/science/article/pii/S0045653523007373/pdfft?md5=b27845850c2a36d495ba0bb6460280d7&pid=1-s2.0-S0045653523007373-main.pdf>

24. Atmospheric cold plasma: A potential technology to control Shewanella putrefaciens in stored shrimp  
International Journal of Food Microbiology 10 February 2023 Volume 390 (Cover date: 2 April 2023) Article 110127  
Jiajie Hu, Weijiao Huang, Shanggui Deng  
<https://www.sciencedirect.com/science/article/pii/S0168160523000430/pdfft?md5=0a779c52daad647c07794db2732dc55b&pid=1-s2.0-S0168160523000430-main.pdf>

25. A systematic review of non-thermal plasma (NTP) technologies for synthetic organic pollutants (SOPs) removal from water: Recent advances in energy yield aspects as their key limiting factor  
Journal of Water Process Engineering 30 November 2022 Volume 51 (Cover date: February 2023) Article 103371  
Mohsen Ansari, Gholamreza Moussavi, Stefanos Giannakis  
<https://www.sciencedirect.com/science/article/pii/S2214714422008157/pdfft?md5=e59277198e1ce141b2352ae65cd6649c&pid=1-s2.0-S2214714422008157-main.pdf>

26. Mechanism of dielectric barrier plasma technology to improve the quantity and quality of short chain fatty acids in anaerobic fermentation of cyanobacteria  
Waste Management 5 November 2022 Volume 155 (Cover date: 1 January 2023) Pages 65-76  
Jie Wang, Junli Xu, Xingguo Liu  
<https://www.sciencedirect.com/science/article/pii/S0956053X22005153/pdfft?md5=e953654a856141fdbac15beae9a76826&pid=1-s2.0-S0956053X22005153-main.pdf>

27. Ozone and cold plasma: Emerging oxidation technologies for inactivation of enzymes in fruits, vegetables, and fruit juices  
Food Control 24 September 2022 Volume 144 (Cover date: February 2023) Article 109399  
V. P. Mayookha, R. Pandiselvam, Ahmed A. Abd El-Maksoud  
<https://www.sciencedirect.com/science/article/pii/S0956713522005928/pdfft?md5=1c3b5ae298c5a975e38a20ab57a101ca&pid=1-s2.0-S0956713522005928-main.pdf>

28. Experimental review of different plasma technologies for the degradation of cylindrospermopsin as model water pollutant  
Chemical Engineering Journal 6 September 2022 Volume 451, Part 4 (Cover date: 1 January 2023) Article 138984  
Marcel Schneider, Raphael Rataj, Juergen F. Kolb  
<https://www.sciencedirect.com/science/article/pii/S1385894722044631/pdfft?md5=34f68ece52105c8804baf1cd902269d7&pid=1-s2.0-S1385894722044631-main.pdf>

29. Plasma-assisted hydrodeoxygenation of bio-oils  
Fuel Processing Technology 13 June 2023 Volume 250 (Cover date: November 2023) Article 107872  
Muhammad Ahmad Mudassir, Maria Batool, Mohammad Reza Rahimpour  
<https://www.sciencedirect.com/science/article/pii/S0378382023002205/pdfft?md5=b8b8c86261de672f10bf819a96659460&pid=1-s2.0-S0378382023002205-main.pdf>

30. Plasma surface treatment facilitated visible light-driven H2 production over TiO2  
Surfaces and Interfaces 30 December 2022 Volume 36 (Cover date: February 2023) Article 102626  
Zhengdong Xu, Yanbai Chen, Hao Yang  
<https://www.sciencedirect.com/science/article/pii/S2468023022008835/pdfft?md5=74e9c4ce004064675a79eab31d929d42&pid=1-s2.0-S2468023022008835-main.pdf>

31. Subcellular damages of pathogenic fungi combined with gene expression analysis reveals mechanisms that cold plasma controlling apricot disease  
Food Bioscience 8 May 2023 Volume 53 (Cover date: June 2023) Article 102728  
Yue Pan, Tingting Li, Xiaowen Hua  
<https://www.sciencedirect.com/science/article/pii/S2212429223003796/pdfft?md5=1e002441c756dd77ba518e7791efe9e6&pid=1-s2.0-S2212429223003796-main.pdf>

32. Exploring simultaneous elimination of dimethyl phthalate and nitrogen by a novel constructed wetlands coupled with dielectric barrier discharge plasma  
Chemical Engineering Journal 8 October 2022 Volume 452, Part 4 (Cover date: 15 January 2023) Article 139666  
Xin Zhao, Ruigang Wang, Haiming Wu  
<https://www.sciencedirect.com/science/article/pii/S1385894722051452/pdfft?md5=7ea6d2ddf08d0394c7faac32ba609359&pid=1-s2.0-S1385894722051452-main.pdf>

33. Fast gas quenching of microwave plasma effluent for enhanced CO2 conversion  
Journal of CO2 Utilization 31 March 2023 Volume 71 (Cover date: May 2023) Article 102473  
A. Hecimovic, C. K. Kiefer, U. Fantz  
<https://www.sciencedirect.com/science/article/pii/S2212982023000847/pdfft?md5=f476c0562c2c9120bcf33e330e0e7649&pid=1-s2.0-S2212982023000847-main.pdf>

34. Low temperature plasma-assisted synthesis and modification of water splitting electrocatalysts  
Electrochimica Acta 6 March 2023 Volume 449 (Cover date: 1 May 2023) Article 142179  
Chu Qin, Shijun Tian, Zhongqing Jiang  
<https://www.sciencedirect.com/science/article/pii/S0013468623003626/pdfft?md5=99e362499f3f13f4963cd4704d233ef4&pid=1-s2.0-S0013468623003626-main.pdf>

35. A high-efficiency solar desalination biomass material prepared by DBD plasma  
Journal of Environmental Chemical Engineering 22 June 2023 Volume 11, Issue 5 (Cover date: October 2023) Article 110411  
Jiabao Sun, Yanbin Xin, Xinfei Fan  
<https://www.sciencedirect.com/science/article/pii/S2213343723011508/pdfft?md5=a89abe730c673fb64b971e1f95dccbab&pid=1-s2.0-S2213343723011508-main.pdf>

36. Potential biomarkers analysis and protein internal mechanisms by cold plasma treatment: Is proteomics effective to elucidate protein–protein interaction network and biochemical pathway?  
Food Chemistry 17 June 2023 Volume 426 (Cover date: 15 November 2023) Article 136664  
Wei Jia, Xinyu Wu  
<https://www.sciencedirect.com/science/article/pii/S0308814623012827/pdfft?md5=30e565c22c6e6ec8053277e5cd3ac1cd&pid=1-s2.0-S0308814623012827-main.pdf>

37. Cold plasma as a pre-treatment for processing improvement in food: A review  
Food Research International 11 March 2023 Volume 167 (Cover date: May 2023) Article 112663  
Jaqueline de Araújo Bezerra, Carlos Victor Lamarão, Pedro H. Campelo  
<https://www.sciencedirect.com/science/article/pii/S0963996923002089/pdfft?md5=eefa5b88541957a281203113332a43a7&pid=1-s2.0-S0963996923002089-main.pdf>

38. Thermal plasma vitrification treatment of oil-based drill cuttings: Product characterization and harmless transformation  
Journal of Environmental Management 13 January 2023 Volume 331 (Cover date: 1 April 2023) Article 117285  
Junhu Zhou, Zhuofan Zhai, Jianzhong Liu  
<https://www.sciencedirect.com/science/article/pii/S0301479723000737/pdfft?md5=481c2a139d06a143689a7f2915b5525f&pid=1-s2.0-S0301479723000737-main.pdf>

39. Influence of atmospheric and vacuum plasma processing on the organic composition of araça-boi (Eugenia stipitata) juice  
Food Chemistry Advances 17 June 2023 Volume 3 (Cover date: December 2023) Article 100345  
Thayanne R. B. Farias, Elenilson G. Alves Filho, Fabiano A. N. Fernandes  
<https://www.sciencedirect.com/science/article/pii/S2772753X23001673/pdfft?md5=d217f03b381e04106551c3a747b3ac6c&pid=1-s2.0-S2772753X23001673-main.pdf>

40. Implications of cold plasma and plasma activated water on food texture- a review  
Food Control 15 April 2023 Volume 151 (Cover date: September 2023) Article 109793  
M. Anjaly Shanker, Anandu Chandra Khanashyam, Anjineyulu Kothakota  
<https://www.sciencedirect.com/science/article/pii/S0956713523001937/pdfft?md5=139a294ce31bee4b6892d8ea10625d5c&pid=1-s2.0-S0956713523001937-main.pdf>

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