

## The activity of nanomaterials in photocatalysis

Krichevskaya, Marina Proceedings 2023 / art. 23 <https://doi.org/10.3390/proceedings2023092023>

## Ag nanoparticles on mesoporous carbon support as cathode catalyst for anion exchange membrane fuel cell

Linge, Jonas Mart; Erikson, Heiki; Mooste, Marek; Piirsoo, Helle-Mai; **Kaljuvee, Tiit**; Kikas, Arvo; Aruväli, Jaan; Kisand, Vambola; Tamm, Aile; Kannan, Arunachala Mada; Tammeveski, Kaido International Journal of Hydrogen Energy 2023 / p. 11058-11070  
<https://doi.org/10.1016/j.ijhydene.2022.12.138> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Ag-ions play the main role in silver nanoparticles toxicity in the ciliate *Tetrahymena thermophila*

**Juganson, Katre**; Mortimer, Monika; Ivask, Angela; Pucciarelli, Sandra; Miceli, Cristina; Orupõld, Kaja; Kahru, Anne NanoImpact Conference : program and abstract Book 2017 / p. 67

## Ag-ions play the main role in silver nanoparticles toxicity in the ciliate *Tetrahymena thermophila* [Online resource]

**Juganson, Katre**; Mortimer, Monika; Ivask, Angela Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märts 2017, Tartu : teesid] 2017 / [1] p <http://fntdk.ut.ee/teesid/>

## ALD applied to conformal rare-earth coating of ZnO nanoparticles for low temperature thermal imaging applications

**Rauwel, Erwan**; Galeckas, Augustinas; Rauwel, Protima ECS transactions 2014 / p. 23-31 : ill <https://doi.org/10.1149/06409.0023ecst>  
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

## Analysis of photocatalytic performance of nanostructured pyrogenic titanium dioxide powders in view of their polydispersity and phase transition : critical anatase particle size as a factor for suppression of charge recombination

Moiseev, Anna; **Kritševskaja, Marina**; Qi, Fei; Weber, Alfred; Deubener, Joachim Chemical engineering journal 2013 / p. 614-621 : ill <https://doi.org/10.1016/j.cej.2013.05.038> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Antibacterial and antiviral effects of Ag, Cu and Zn metals, respective nanoparticles and filter materials thereof against coronavirus SARS-CoV-2 and influenza A virus

Kubo, Anna-Liisa; Rausalu, Kai; Savest, Natalja; Žusinaite, Eva; **Vasiliev, Grigory**; **Viirsalu, Mihkel**; **Plamus, Tiia**; **Krumme, Andres**; Merits, Andres; Bondarenko, Olesja Pharmaceutics 2022 / art. 2549 : 19 p. : ill <https://doi.org/10.3390/pharmaceutics14122549>  
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## Antiviral efficacy of cerium oxide nanoparticles

Nefedova, Alexandra; Rausalu, Kai; Zusiinaite, Eva; Vanetsev, Alexander; **Rosenberg, Merilin**; Koppel, Kairi; Lilla, Stevin; Visnapuu, Meeri; Smits, Krisjanis; Kisand, Vambola Scientific reports 2022 / art. 18746, 16 p. : ill <https://doi.org/10.1038/s41598-022-23465-6>  
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## Atomic layer deposition of high-k dielectrics on carbon nanoparticles

Tamm, Aile; **Koel, Mihkel**; **Peikolainen, Anna-Liisa** Thin solid films 2013 / p. 16-20 : ill <https://doi.org/10.1016/j.tsf.2012.09.071> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Au ja Ag nanoosakeste saamiseks kasutatavate lähteainete HAuCl<sub>4</sub>·3H<sub>2</sub>O ja AgNO<sub>3</sub> termilise lagunemise uurimine

**Otto, Kairi**; Oja Acik, Ilona; Krunks, Malle; Tõnsuaadu, Kaia XXXIII Eesti Keemiapäevad : teaduskonverentsi teesid 2013 / lk. 55

## Bifunctional platinum-free mixed metal oxygen electrocatalysts based on naturally abundant peat

Teppor, Patrick; Jäger, Rutha; Härmä, Meelis; Aruväli, Jaan; **Volobujeva, Olga**; Koppel, Mirjam; Lust, Enn ECS Meeting Abstracts 2022 / p. 29-37 : ill <https://doi.org/10.1149/10807.0029ecst> [Journal metrics at Scopus](#) [Article at Scopus](#)

## Biocidal properties study of silver nanoparticles used for application in green housing

**Küünal, Siim**; **Kutti, Sander**; **Rauwel, Protima**; Guha, Mithu; Wragg, David; **Rauwel, Erwan** International nano letters 2016 / p. 191-197 : ill <https://doi.org/10.1007/s40089-016-0186-7>

## Biofabrication of zinc oxide nanoparticles with syzygium aromaticum flower buds extract and finding its novel application in controlling the growth and mycotoxins of *Fusarium graminearum*

Lakshmeesha, Thimappa Ramachandrapa; Kalagatur, Naveen Kumar; Mudili, Venkataramana; Mohan, Chakrabhavi Dhananjaya; Rangappa, Shobith; Prasad, Bangari Daruka; Ashwini, Bagepalli Shivaram; Hashem, Abeer; Alqarawi, Abdulaziz A.; **Gupta, Vijai Kumar** Frontiers in microbiology 2019 / art. 1244, 13 p. : ill <https://doi.org/10.3389/fmicb.2019.01244> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Biological nanofactories : using living forms for metal nanoparticle synthesis

Srivastava, Shilpi; **Usmani, Zeba**; Atanasov, Atanas G.; Singh, Vinod Kumar; Singh, Nagendra Pratap; Abdel-Azeem, Ahmed M. Mini-Reviews in Medicinal Chemistry 2021 / p. 245 - 265 <https://doi.org/10.2174/1389557520999201116163012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## Characterization of thermally treated anatase TiO<sub>2</sub> supplemented by oxygen adsorption measurements

**Kritševskaja, Marina**; Moiseev, Anna; Weber, Alfred; Deubener, Joachim 5th European Conference on Environmental Applications

**CuInS<sub>2</sub> solar cell absorber plasmonically modified by gold nanoparticles**

Repän, Taavi; Dolgov, Leonid; **Katerski, Atanas; Oja Acik, Ilona; Kärber, Erki; Mere, Arvo; Mikli, Valdek; Krunk, Malle**; Sildos, Ilmo Applied physics. A, Materials science & processing 2014 / p. 455-458 : ill <https://doi.org/10.1007/s00339-014-8681-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**CuInS<sub>2</sub>-Poly(3-(ethyl-4-butanoate)thiophene) nanocomposite solar cells : preparation by an in situ formation route, performance and stability issues**

Maiera, Eugen; Ratha, Thomas; Haas, Wernfried; Werzer, Oliver; Saf, Robert; Hofer, Ferdinand; Meissner, Dieter; **Volobujeva, Olga; Bereznev, Sergei; Mellikov, Enn**; Amenitsch, Heinz; Resel, Roland; Trimmel, Gregor Solar energy materials and solar cells 2011 / p. 1354-1361 : ill

**Cytotoxicity of metal-based nanoparticles in epithelial barrier models**

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**Development of bacterial biosensors and human stem cell-based in vitro assays for the toxicological profiling of synthetic nanoparticles = Rekombinantsetel sensorbakteritel ja inimese tüvirakkudel põhinevate in vitro testide väljatöötamine sünteetiliste nanoosakeste toksikoloogiliseks uurimiseks**

Bondarenko, Olesja 2012 <https://digi.lib.ttu.ee/i/?794>

**Differential susceptibility of catheter biomaterials to biofilm-associated infections and their remedy by drug-encapsulated eudragit RL100 nanoparticles**

Pandey, Vivek Kumar; Srivastava, Kumar Rohit; Ajmal, Gufran; Thakur, Vijay Kumar; **Gupta, Vijai Kumar**; Upadhyay, Siddh Nath; Mishra, Pradeep Kumar International Journal of Molecular Sciences 2019 / Art. nr. 5110 <https://doi.org/10.3390/ijms20205110> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Dissolution of silver nanowires and nanospheres dictates their toxicity to escherichia coli**

Visnapuu, Meeri; Joost, Urmas; **Juganson, Katre**; Künnis-Beres, Kai; Kahru, Anne; Kisand, Vambola; Ivask, Angela BioMed Research International 2013 / art. 819252 <https://doi.org/10.1155/2013/819252> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Doping engineering for controlled hydration and mechanical properties in Portland cement mortar with ultra-low ZnO concentration**

Tamashiro, Jacqueline Roberta; de la Rubia, Miguel Angel; Rubio-Marcos, Fernando; **Rojas Hernandez, Rocio Estefania**; Silva, Lucas Henrique Pereira; de Paiva, Fabio Friol Guedes; Kinoshita, Angela; Terrades, Amparo Moragues Journal of building engineering 2023 / art. 107748 <https://doi.org/10.1016/j.job.2023.107748> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Ecotoxicity of nanosized magnetite to crustacean Daphnia magna and duckweed Lemna minor**

Blinova, Irina; **Kanarbik, Liina**; Irha, Natalja; Kahru, Anne Hydrobiologia 2017 / p. 141-149 : ill <https://doi.org/10.1007/s10750-015-2540-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Ecotoxicological evaluation of shale fuel oils, metal-based nanoparticles and glyphosate formulations = Põlevikivikütteõlide, metalliliste nanoosakeste ja glüfosaadipõhiste herbitsiidide ökotoksikoloogilised uuringud**

**Kanarbik, Liina** 2017 <https://digi.lib.ttu.ee/i/?7180> [https://www.ester.ee/record=b4649796\\*est](https://www.ester.ee/record=b4649796*est)

**Eesti teadlaste loodud nanokangas tõrjub koroonaviirust [Võrguväljaanne]**

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**Effect of alkali ions (Na<sup>+</sup>, K<sup>+</sup>, Cs<sup>+</sup>) on reaction mechanism of CZTS nano-particles synthesis**

**Kumar, Suresh; Altosaar, Mare; Grossberg, Maarja; Mikli, Valdek** Superlattices and microstructures 2018 / p. 54-63 : ill <https://doi.org/10.1016/j.spmi.2018.02.019>

**Effect of alkali ions (Na<sup>+</sup>, K<sup>+</sup>, Cs<sup>+</sup>) on reaction mechanism of CZTS nano-particles synthesis [Online resource]**

**Kumar, Suresh; Altosaar, Mare; Grossberg, Maarja; Mikli, Valdek** Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1 p <http://fntdk.ut.ee/teesid-2018/>

**Effect of eutrophication on toxicity of metallic nanoparticles to daphnia magna [Online resource]**

**Muna, Marge**; Heinlaan, Margit; Blinova, Irina; Kahru, Anne Tartu Ülikooli ASTRA projekt PER ASPERA : Funktsionaalsed materjalid ja tehnoloogiad : [7-8 märtsil 2018, Tallinn : teesid] GSFMT Scientific Conference 2018 : Tallinn, March 7-8, 2018 : abstracts 2018 / 1

### **The effect of heat treatment on the morphology and mobility of Au nanoparticles**

**Oras, Sven;** Vlassov, Sergei; Vigonski, Simon; Polyakov, Boris; Antsov, Mikk; Zadin, Vahur; Lõhmus, Rünno; Mougin, Karine  
Beilstein Journal of Nanotechnology 2020 / p. 61-67 <https://doi.org/10.3762/bjnano.11.6> [Journal metrics at Scopus](#) [Article at Scopus](#)  
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### **Effect of nanoparticles on morphology and size of primary silicon and property of selective laser melted Al-high Si content alloys**

Xi, Lixia; Guo, Shuang; **Prashanth, Konda Gokuldoss; Sarac, Baran; Eckert, Jürgen** Vacuum 2021 / art. 110405  
<https://doi.org/10.1016/j.vacuum.2021.110405> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Electrocatalytic oxidation of hydroxide ions by Co<sub>3</sub>O<sub>4</sub> and Co<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanoparticles both at particle ensembles and at the single particle level**

Xie, Ruo-Chen; Volokhova, Maria; Boldin, Aleksei; Seinberg, Liis; Tsujimoto, Masahiko; Yang, Minjun; Rasche, Bertold; Compton, Richard G. ChemElectroChem 2020 / p. 1261– 1276 : ill <https://doi.org/10.1002/celec.202000230>

### **Electrochemical characterisation of Co@Co(OH)<sub>2</sub> core-shell nanoparticles and their aggregation in solution**

Xie, Ruo-Chen; Batchelor-McAuley, Christopher; **Rauwel, Erwan;** Rauwel, Protima; Compton, Richard G. ChemElectroChem 2020 / p. 4259 - 4268 <https://doi.org/10.1002/celec.202001199> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Electrodeposition of CdSe nanofibers as photo-active matrix for polymer solar cells**

**Kois, Julia; Bereznev, Sergei; Gurevits, Jelena; Mellikov, Enn; Õpik, Andres** Baltic Polymer Symposium 2013 : Trakai, Lithuania, September 18-21, 2013 : programme [and abstracts] 2013 / p. 122

### **Emerging trends in nanoparticle synthesis using plant extracts for biomedical applications**

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### **Erratum to Toxicity of two types of silver nanoparticles to aquatic crustaceans Daphnia magna and Thamnocephalus platyurus (Environ Sci Pollut Res, 10.1007/s11356-012-1290-5)**

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### **Evaluation of the biological effects of engineered nanoparticles on unicellular pro- and eukaryotic organisms = Süniteeliste nanoosakeste bioloogiliste efektide hindamine üherakulistel pro- ja eukarüootsetel organismidel**

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### **Exposure of freshwater zooplankton to copper nanoparticles : toxicity and copper body burden**

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### **Exposure to sublethal concentrations of Co<sub>3</sub>O<sub>4</sub> and Mn<sub>2</sub>O<sub>3</sub> nanoparticles induced elevated metal body burden in Daphnia magna**

Heinlaan, Margit; **Muna, Marge; Juganson, Katre;** Oriekhova, Olena; Stoll, Serge; Kahru, Anne; Slaveykova, Vera Aquatic toxicology 2017 / p. 123-133 : ill <https://doi.org/10.1016/j.aquatox.2017.06.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Extracellular conversion of silver ions into silver nanoparticles by protozoan Tetrahymena thermophila**

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### **Fibrous alumina-based Ni-CeO<sub>2</sub> catalyst : synthesis, structure and properties in propane pre-reforming**

Potemkin, D. I.; **Aghayan, Marina; Kamboj, Nikhil Kumar; Hussainova, Irina** Materials letters 2018 / p. 35-37 : ill <https://doi.org/10.1016/j.matlet.2017.12.039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Formulation and aerosol jet printing of nickel nanoparticle ink for high-temperature microelectronic applications and patterned graphene growth**

McKibben, Nicholas; Curtis, Michael; Maryon, Olivia; Sawyer, Mone't; **Lazouskaya, Maryna;** Eixenberger, Josh; Deng, Zhangxian; Estrada, David ACS Applied Electronic Materials 2024 / p. 748 - 760 <https://doi.org/10.1021/acsaem.3c01175> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Growth of Co nanoparticles on a nanostructured [thetha]-Al<sub>2</sub>O<sub>3</sub> film on CoAl(100)**

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**Hybrid nanocomposites and ultrastable metal nanoparticles studied for the development of applications in nanomedicine, water purification and energy harvesting**

**Rauwel, Erwan; Rauwel, Protima; Küüna, Siim**; Volobujeva, Olga; Ivask, Angela; Galeckas, Augustinas; Duqroquet, F.; Wragg, David EMN Meeting on Nanoparticles 2017 : May 9th to 13th, 2017 in San Sebastian, Spain 2017 / [1] p

**Incorporation of plasmonic Au nanoparticles inside the CdTe thin film absorber**

**Maticiu, Natalia; Spalatu, Nicolae; Katerski, Atanas**; Repan, T.; **Hiie, Jaan** NANOSMAT Conference, 22-25 September 2013, Granada, Spain : abstracts book 2013 / p. 341-342

**Increased efficiency inside the CdTe solar cell absorber caused by plasmonic metal nanoparticles**

Repän, Taavi; Pikker, Siim; Dolgov, Leonid; Loot, Ardi; **Hiie, Jaan**; **Krunks, Malle**; Sildos, Ilmo Energy procedia 2014 / p. 229-233 :

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**Influence of the interface on the photoluminescence properties in ZnO carbon-based nanohybrids**

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**In-situ deposition of gold nanoparticles onto different substrates by chemical spray pyrolysis**

**Oja Acik, Ilona; Oyekoya, Gboyega Nathaniel; Mere, Arvo; Katerski, Atanas; Mikli, Valdek; Krunks, Malle** IOP conference

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**Interaction of CuCl<sub>2</sub> with poly(ethylene glycol) under microwave radiation**

Tverjanovich, Andrey; Grevtsev, A. S.; **Bereznev, Sergei** Materials research express 2017 / art. 015006, p. 1-6 : ill

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**Interaction of firefly luciferase and silver nanoparticles and its impact on enzyme activity**

**Käkinen, Aleksandr**; Ding, Feng; Chen, Pengyu; Mortimer, Monika; Kahru, Anne; Ke, Pu Chun Nanotechnology 2013 / art. 345101

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**Investigation of planetary milling for nano-silicon carbide reinforced aluminium metal matrix composites**

**Kollo, Lauri**; Leparoux, Marc; Bradbury, Christopher R.; Jäggi, Christian; Carreno-Morelli, Efrain; Rodriguez-Arbaizar, Mikel Journal

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**Investigations on new carbon-based nanohybrids combining carbon nanotubes and metal oxide nanoparticles**

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**Investigations on new carbon-based nanohybrids combining carbon nanotubes, HfO<sub>2</sub> and ZnO nanoparticles**

**Rauwel, Protima**; Galeckas, Augustinas; **Salumaa, Martin**; **Aasna, Andres**; Duqroquet, Frederiquet; **Rauwel, Erwan** IOP

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**Low-cost plasmonic solar cells prepared by chemical spray pyrolysis**

**Kärber, Erki; Katerski, Atanas; Oja Acik, Ilona; Mikli, Valdek; Mere, Arvo**; Sildos, Ilmo; **Krunks, Malle** The Beilstein journal of

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**Magnetic nanomaterials synthesis and functionalization for biomedical applications = Magnetiliste nanomaterjalide**

**süntees ja funktsionaliseerimine biomeditsiiniliste rakenduste jaoks**

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### **Magnetic studies on spinel ferrite nanoparticles and bulk samples synthesized by citrate combustion route**

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### **Mechanism of a microwave-assisted polyol synthesis of nanosize CuInSe<sub>2</sub> particles and their optical and photoelectric properties**

Grevtsev, A. S.; Goncharenko, I. Yu.; **Bereznev, Sergei** Russian journal of applied chemistry 2014 / p. 671-675 : ill <https://doi.org/10.1134/S1070427214060019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Mechanisms of toxic action of silver nanoparticles in the protozoan Tetrahymena thermophila : from gene expression to phenotypic events**

**Juganson, Katre**; Mortimer, Monika; Ivask, Angela; Pucciarelli, Sandra; Miceli, Cristina; Orupöld, Kaja; Kahru, Anne Environmental pollution 2017 / p. 481-489 : ill <https://doi.org/10.1016/j.envpol.2017.03.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Metal oxide nanoparticles embedded in rare-earth matrix for low temperature thermal imaging applications**

**Rauwel, Erwan**; Galeckas, Augustinas; **Rauwel, Protima**; Hansen, P.-A.; Wragg, David; Nilsen, Ola; Fjellvag, H. Materials research express 2016 / p. 1-11 : ill <https://doi.org/10.1088/2053-1591/3/5/055010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Microstructure formation and mechanical performance of micro-nanoscale ceramic reinforced aluminum matrix composites manufactured by laser powder bed fusion**

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### **Modification of light absorption in thin CuInS<sub>2</sub> films by sprayed Au nanoparticles**

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