

Тема: “Технологии производства конструкционных наноматериалов”

Запросы

Запрос №1: “Structural nanomaterials”

	Название документа	Авторы	Источник	Год	Citations
☐	1 Multiphysics of multifunctional nanofluids based on different oxides nanoparticles and glycerol fluid Article	Sengwa, R.J., Saraswat, M.	Particuology, 76, pp. 46–62	2023	1
	Просмотреть реферат View at Publisher Связанные документы				
☐	2 Nanodrugs alleviate acute kidney injury: Manipulate RONS at kidney Review • <i>Open access (открытый доступ)</i>	Chen, Q., Nan, Y., Yang, Y., ... Huang, Q., Ai, K.	Bioactive Materials, 22, pp. 141–167	2023	1
	Просмотреть реферат View at Publisher Связанные документы				
☐	3 Carbon nanomaterials in oral implant Article	Xu, X., Wen, C., Meng, M., ... Chen, J., Dong, Q.	Chinese Journal of Tissue Engineering Research, 27(7), pp. 1062–1070	2023	0
	Просмотреть реферат View at Publisher Связанные документы				
☐	4 Silicon dioxide quantum dots anchored on the surface of carbon nanodiscs as photoluminescent probe for Cr(VI) detection Article	Cilamkoti, V., Dutta, R.K.	Journal of Photochemistry and Photobiology A: Chemistry, 436, 114406	2023	0
	Просмотреть реферат View at Publisher Связанные документы				
☐	5 Development of interfacial strong Interaction-enhanced C-F@CuBi₂(O₄/N_{1-x})₄/CN Nano-sheet clusters photocatalysts for the simultaneous degradation of tetracycline and reduced Cr(VI) Article	Niu, J., Peng, Y., Hu, T., ... Cheng, J., Hu, Y.	Chemical Engineering Journal, 454, 140203	2023	0
	Просмотреть реферат View at Publisher Связанные документы				
☐	6 Smaller Sized Hepatitis E Virus ORF2 Protein-Chitosan Nanoemulsion Conjugate Elicits Improved Immune Response Article • <i>Open access (открытый доступ)</i>	Rani, D., Nayak, B., Srivastava, S.	Biointerface Research in Applied Chemistry, 13(1), 46	2023	0
	Просмотреть реферат View at Publisher Связанные документы				

Запрос №2: “Production of nanomaterials”

	Название документа	Авторы	Год	Источник	Цитирования
☐	1 Functionalization of nitrogen-doped graphene quantum dot: A sustainable carbon-based catalyst for the production of cyclic carbonate from epoxide and CO ₂	Gorji, Z.E., Khodadadi, A.A., Riahi, S., (...), Mortazavi, Y., Kemell, M.	2023	Journal of Environmental Sciences (China) 126, с. 408-422	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	2 An overview on light assisted techniques for waste-derived hydrogen fuel towards aviation industry	Suresh, R., Rajendran, S., Dutta, K., Khoo, K.S., Soto-Moscoco, M.	2023	Fuel 334,126645	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	3 Surface ligand functionalized Few-layered MoSe ₂ nanosheets decorated CdS nanorods for spectacular rate of H ₂ production	Bhavani, P., Praveen Kumar, D., Hussain, M., (...), Lam, S.S., Park, Y.-K.	2023	Fuel 334,126551	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	4 The interaction of ZnO nanoparticles, Cr(VI), and microorganisms triggers a novel ROS scavenging strategy to inhibit microbial Cr(VI) reduction	Yan, Z., Liu, C., Liu, Y., (...), Shi, Y., Ding, C.	2023	Journal of Hazardous Materials 443,130375	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	5 Trends and characteristics of employing cavitation technology for water and wastewater treatment with a focus on hydrodynamic and ultrasonic cavitation over the past two decades: A Scientometric analysis	Moftakhari Anasori Movahed, S., Calgaro, L., Marcomini, A.	2023	Science of the Total Environment 858,159802	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	6 Transition metal nanoparticles as nanocatalysts for Suzuki, Heck and Sonogashira cross-coupling reactions	Ashraf, M., Ahmad, M.S., Inomata, Y., (...), Tahir, M.N., Kida, T.	2023	Coordination Chemistry Reviews 476,214928	0
	Просмотр краткого описания View at Publisher Связанные документы				

Запрос №3: “Nanomaterials synthesis technology”

	Название документа	Авторы	Год	Источник	Цитирования
☐	1 Self-assembly of Au nanocrystals into large-area 3-D ordered flexible superlattice nanostructures arrays for ultrasensitive trace multi-hazard detection	Liu, W., Li, Q., Wu, J., (...), Xu, Z., Wang, D.	2023	Journal of Hazardous Materials 443,130124	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	2 Coupled adsorption and photocatalysis of g-C ₃ N ₄ based composites: Material synthesis, mechanism, and environmental applications	Yu, Y., Huang, H.	2023	Chemical Engineering Journal 453,139755	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	3 Simultaneous removal of organic micropollutants and inorganic heavy metals by nano-calcium peroxide induced Fenton-like treatment	Xia, H., Lyu, T., Guo, J., Zhao, C., Yang, Y.	2023	Separation and Purification Technology 305,122474	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	4 Enhanced adsorption and photocatalytic Cr(VI) reduction and sterilization of defective MoS ₂ /PVP	Zhang, Y., Li, H., Zhang, X., (...), Ou, H., Zhang, Y.	2023	Journal of Colloid and Interface Science 630, с. 742-753	0
	Просмотр краткого описания View at Publisher Связанные документы				
☐	5 Based on multi-omics technology study the antibacterial mechanisms of pH-dependent N-GQDs beyond ROS	Wu, W., Qin, Y., Fang, Y., (...), Meng, F., Zhang, M.	2023	Journal of Hazardous Materials 441,129954	1
	Просмотр краткого описания View at Publisher Связанные документы				
☐	6 Efficient and recyclable degradation of organic dye pollutants by CeO ₂ @ZIF-8 nanozyme-based non-photocatalytic system	Yang, T., Liu, X., Zeng, Z., (...), Tian, K., Qing, T.	2023	Environmental Pollution 316,120643	0
	Просмотр краткого описания View at Publisher Связанные документы				

Запрос №4: “Structural nanomaterials usage”

	Название документа	Авторы	Год	Источник	Цитирования
☐	1 Physicochemical properties of TiO ₂ , ZrO ₂ , Fe ₃ O ₄ nanocrystalline adsorbents and photocatalysts	Dontsova, T., Kyrii, S., Yanushevska, O., Suprunchuk, V., Kosogina, I.	2022	Chemical Papers 76(12), с. 7667-7683	0
	Просмотр краткого описания ▾ View at Publisher Связанные документы				
☐	2 Structural, morphological and optoelectronic aspects of YAlO ₃ :Dy ³⁺ doped nanocrystalline materials for NUV energized WLEDs	Gupta, I., Singh, S., Kumar, P., (...), Kumar, V., Singh, D.	2022	Current Applied Physics 43, с. 78-89	4
	Просмотр краткого описания ▾ View at Publisher Связанные документы				
☐	3 Functions and strategies for enhancing zinc availability in plants for sustainable agriculture <i>Открытый доступ</i>	Hamzah Saleem, M., Usman, K., Rizwan, M., Al Jabri, H., Alsafran, M.	2022	Frontiers in Plant Science 13,1033092	0
	Просмотр краткого описания ▾ View at Publisher Связанные документы				
☐	4 Medicinal honeycomb ceria nanoparticles’ fabrication by using green synthesis method	Khalid, N.B., Sarwar, M., Rakha, A., (...), Rehman, R.A., Akhtar, S.	2022	Applied Nanoscience (Switzerland) 12(10), с. 2933-2943	0
	Просмотр краткого описания ▾ View at Publisher Связанные документы				
☐	5 Nanozymes: Supramolecular perspective	Abedanzadeh, S., Moosavi-Movahedi, Z., Sheibani, N., Moosavi-Movahedi, A.A.	2022	Biochemical Engineering Journal 183,108463	0
	Просмотр краткого описания ▾ View at Publisher Связанные документы				
☐	6 Improvement in properties of edible film through non-thermal treatments and nanocomposite materials: A review	Das, D., Panesar, P.S., Saini, C.S., Kennedy, J.F.	2022	Food Packaging and Shelf Life 32,100843	3
	Просмотр краткого описания ▾ View at Publisher Связанные документы				

Статьи

Статья №1: Jinhao, G. A. O. Multifunctional Magnetic Nanoparticles: Design, Synthesis, and Biomedical Applications / Jinhao, G. A. O., G. U. Hongwei, X. U. Bing // Accounts of Chemical Research. – 2009. – Том 42. – С. 1097 - 1107. **Journal Impact Score: 22.32, Lead Author h-index: 42**

Accounts of Chemical Research • Том 42, Выпуск 8, Страницы 1097 - 1107 • 18 August 2009

Multifunctional magnetic nanoparticles: design, synthesis, and biomedical applications

Jinhao G.A.O.^b; Hongwei G.U.^c; Bing X.U.^{a, b}

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^b Department of Chemistry, Hong Kong University of Science and Technology, Hong Kong, Clear Water Bay, Hong Kong

^c College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou, Jiangsu 215123, China

1520 99th percentile
Цитаты в Scopus

39,74
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Количество просмотров  71

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Краткое описание

The combination of nanotechnology and molecular biology has developed into an emerging research area: nanobiotechnology. Magnetic nanoparticles are well-established **nanomaterials** that offer controlled size, ability to be manipulated externally, and enhancement of contrast in magnetic resonance imaging (MRI). As a result, these nanoparticles could have many applications in biology and medicine, including protein purification, drug delivery, and medical imaging. Because of the potential benefits of multimodal functionality in biomedical applications, researchers would like to design and fabricate multifunctional magnetic nanoparticles. Currently, there are two strategies to fabricate magnetic nanoparticle-based multifunctional nanostructures. The first, molecular functionalization, involves attaching antibodies, proteins, and dyes to the magnetic nanoparticles. The other method integrates the magnetic nanoparticles with other functional nanocomponents, such as quantum dots (QDs) or metallic nanoparticles. Because they can exhibit several features synergistically and deliver more than one function simultaneously, such multifunctional magnetic nanoparticles could have unique advantages in biomedical applications. In this Account, we review examples of the design and biomedical application of multifunctional magnetic nanoparticles. After their conjugation with proper ligands, antibodies, or proteins, the biofunctional magnetic nanoparticles exhibit highly selective binding. These results indicate that such nanoparticles could be applied to biological medical problems such as protein purification, bacterial detection, and toxin decorporation. The hybrid nanostructures, which combine magnetic nanoparticles with other nanocomponents, exhibit paramagnetism alongside features such as fluorescence or enhanced optical contrast. Such structures could provide a platform for enhanced medical imaging and controlled drug delivery. We expect that the combination of unique **structural** characteristics and integrated functions of multicomponent magnetic nanoparticles will attract increasing research interest and could lead to new opportunities in nanomedicine. © 2009 American Chemical Society.

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Репрезентативные документы

Репрезентативные публикации очень тесно связаны с темой и позволяют нам получить представление о центральном предмете исследования в рамках темы. Как правило, у таких публикаций много ссылок внутри темы и высокая доля содержащихся в них ссылок относится к теме. Кроме того, их относительно часто цитируют (для их возраста).

Review

Iron oxide nanoparticles: Diagnostic, therapeutic and theranostic applications

Dadfar, S.M., Roemhild, K., ..., Lammers, T.

Advanced Drug Delivery Reviews, 2019

467

Цитировал

Review

Open access

Iron oxide nanoparticles for biomedical applications: A perspective on synthesis, drugs, antimicrobial activity, and toxicity

Arias, L.S., Pessan, J.P., ..., Monteiro, D.R.

Antibiotics, 2018

279

Цитировал

Article

Open access

Exceedingly small iron oxide nanoparticles as positive MRI contrast agents

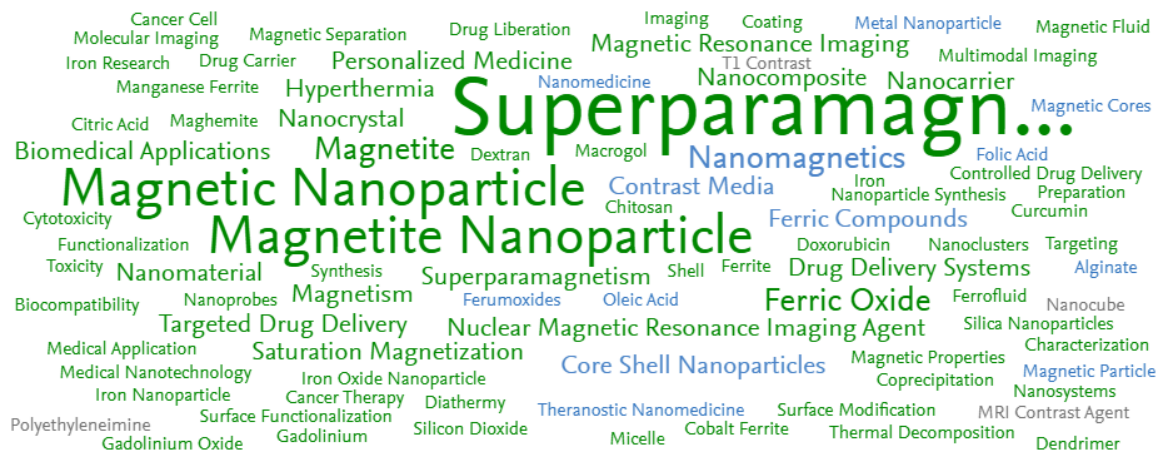
Wei, H., Bruns, O.T., ..., Bawendi, M.G.

Proceedings of the National Academy of Sciences of the United States of America, 2017

289

Цитировал

Название	Documents
Gu, Ning	20
Laurent, Sophie	19
Abakumov, M. A.	18
Danafar, Hossein	17
Bégin-Colin, Sylvie	17



ААА релевантность ключевой фразы | снижение ААА рост (2017-2021)

Статья №2: Jariwala, D. Carbon nanomaterials for electronics, optoelectronics, photovoltaics, and sensing / Jariwala, D., Sangwan, V. K., Lauhon, L. J. [и др.] // Chemical Society Reviews. – 2013. – Том 42. – С. 2824 - 2860. **Journal Impact Score: 54.69, Lead Author h-index: 105**

Chemical Society Reviews • Открытый доступ • Том 42, Выпуск 7, Страницы 2824 - 2860 • 11 March 2013

Carbon nanomaterials for electronics, optoelectronics, photovoltaics, and sensing

Jariwala, Deep^a; Sangwan, Vinod K.^a; Lauhon, Lincoln J.^a; Marks, Tobin J.^{a, b};

Hersam, Mark C.^{a, b, c} 

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^c Department of Medicine, Northwestern University, Evanston, IL, 60208, United States

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Краткое описание

In the last three decades, zero-dimensional, one-dimensional, and two-dimensional carbon nanomaterials (i.e., fullerenes, carbon nanotubes, and graphene, respectively) have attracted significant attention from the scientific community due to their unique electronic, optical, thermal, mechanical, and chemical properties. While early work showed that these properties could enable high performance in selected applications, issues surrounding structural inhomogeneity and imprecise assembly have impeded robust and reliable implementation of carbon nanomaterials in widespread technologies. However, with recent advances in synthesis, sorting, and assembly techniques, carbon nanomaterials are experiencing renewed interest as the basis of numerous scalable technologies. Here, we present an extensive review of carbon nanomaterials in electronic, optoelectronic, photovoltaic, and sensing devices with a particular focus on the latest examples based on the highest purity samples. Specific attention is devoted to each class of carbon nanomaterial, thereby allowing comparative analysis of the suitability of fullerenes, carbon nanotubes, and graphene for each application area. In this manner, this article will provide guidance to future application developers and also articulate the remaining research challenges confronting this field. © 2013 The Royal Society of Chemistry.

Репрезентативные документы

Репрезентативные публикации очень тесно связаны с темой и позволят нам получить представление о центральном предмете исследования в рамках темы. Как правило, у таких публикаций много ссылок внутри темы и высокая доля содержащихся в них ссылок относится к теме. Кроме того, их относительно часто цитируют (для их возраста).

Review

Chirality Pure Carbon Nanotubes: Growth, Sorting, and Characterization

Yang, F., Wang, M., ..., Li, Y.

Chemical Reviews, 2020

164

Цитировал

Article

Carbon nanotubes as emerging quantum-light sources

He, X., Htoon, H., ..., Voisin, C.

Nature Materials, 2018

159

Цитировал

Article

Tunable room-Temperature single-photon emission at telecom wavelengths from sp³ defects in carbon nanotubes

He, X., Hartmann, N.F., ..., Doorn, S.K.

Nature Photonics, 2017

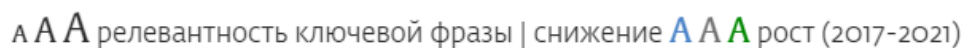
183

Цитировал

Лучшие авторы по этой теме

Название	Documents
Htoon, Han	30
Doorn, Stephen K.	30
Kataura, Hiromichi	30
Zaumseil, Jana	26
Wang, YuHuang	25

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Статья №3: Ariga, K. Layer-by-layer nanoarchitectonics: Invention, innovation, and evolution / Ariga, K., Yamauchi, Y., Rydzek, G. [и др.] // Chemistry Letters. – 2014. – Том 43. – С. 36 - 68.
Journal Impact Score: 1.66, Lead Author h-index: 127

Chemistry Letters • Том 43, Выпуск 1, Страницы 36 - 68 • 2014

Layer-by-layer nanoarchitectonics: Invention, innovation, and evolution

Ariga, Katsuhiko^{a, b}  ; Yamauchi, Yusuke^{a, c, d}  ; Rydzek, Gauthier^a;
Ji, Qingmin^a; Yonamine, Yusuke^{a, b}; Kevin C.-W.^e; Hill, Jonathan P.^{a, b}

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Краткое описание

Materials fabrication with nanoscale structural precision based on bottom-up-type self-assembly has become more important in various current disciplines in chemistry including materials chemistry, organic chemistry, physical chemistry, analytical chemistry, biochemistry, colloid and surface chemistry, and supramolecular chemistry. Although the design of new materials based on nanoscale self-assembly is anticipated as a key concept, preparing complete three-dimensional structures at nanoscale precision remains a difficult target using current technologies. Rather, dimension-reduced approaches such as layering of two-dimensional nanostructures into precisely controlled lamellar nanomaterials are currently achievable. In particular, layer-by-layer (LbL) assembly is known as a highly versatile method for fabrication of controlled layered structures from various kinds of component materials using very simple, inexpensive, and rapid procedures. Therefore, fabrication of multilayer films through the LbL deposition process has attracted growing interest from various research communities. The high versatility and flexibility of LbL assembly is continuously creating new concepts, new materials, new procedures, and new applications. In this highlight review, we focus on nanoarchitectonics by LbL assembly. After an initial introduction on the invention and a brief history of the LbL assembly technique, innovations and the evolution of the technique are described based mainly on recent examples, which are categorized into two sections: (i) developments in methodology (technical, material, and phenomenological aspects with expansion of concept) and (ii) progress in applications (physical, chemical/biochemical, and biomedical applications) © 2014 The Chemical Society of Japan.

Репрезентативные документы

Репрезентативные публикации очень тесно связаны с темой и позволяют нам получить представление о центральном предмете исследования в рамках темы. Как правило, у таких публикаций много ссылок внутри темы и высокая доля содержащихся в них ссылок относится к теме. Кроме того, их относительно часто цитируют (для их возраста).

Review

A closer physico-chemical look to the Layer-by-Layer electrostatic self-assembly of polyelectrolyte multilayers

69

Guzmán, E., Rubio, R.G., Ortega, F.

Цитировал

Advances in Colloid and Interface Science, 2020

Review

Covalent layer-by-layer films: Chemistry, design, and multidisciplinary applications

103

An, Q., Huang, T., Shi, F.

Цитировал

Chemical Society Reviews, 2018

Article

Diffusion of Sites versus Polymers in Polyelectrolyte Complexes and Multilayers

75

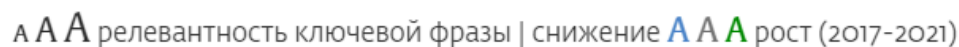
Fares, H.M., Schlenoff, J.B.

Цитировал

Journal of the American Chemical Society, 2017

Лучшие авторы по этой теме

Название	Documents
Hong, Jinkee	24
De Vos, Wiebe M.	21
Grunlan, Jaime C.	20
Schlenoff, Joseph B.	20
Groth, Thomas	17



Статья №4: Desiredy, A. Ultrastable silver nanoparticles / Desiredy, A, Conn, B. E., Guo, J. [и др.] // Nature. – 2013. – Том 501. – С. 399 – 402. **Journal Impact Score: 21.05, Lead Author h-index: 11**

Nature • Том 501, Выпуск 7467, Страницы 399 – 402 • 2013

Ultrastable silver nanoparticles

Desiredy, Anil^a; Conn, Brian E.^a; Guo, Jingshu^a; Yoon, Bokwon^b; Barnett, Robert N.^b; Monahan, Bradley M.^a; Kirschbaum, Kristin^a; Griffith, Wendell P.^a; Whetten, Robert L.^{c, d}; Landman, Uzi^b;

Bigioni, Terry P.^{a, e} ✉

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^d Department of Physics and Astronomy, University of Texas at San Antonio, San Antonio, TX 78249, United States

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Краткое описание

Noble-metal nanoparticles have had a substantial impact across a diverse range of fields, including catalysis, sensing, photochemistry, optoelectronics, energy conversion and medicine. Although silver has very desirable physical properties, good relative abundance and low cost, gold nanoparticles have been widely favoured owing to their proved stability and ease of use. Unlike gold, silver is notorious for its susceptibility to oxidation (tarnishing), which has limited the development of important silver-based **nanomaterials**. Despite two decades of synthetic efforts, silver nanoparticles that are inert or have long-term stability remain unrealized. Here we report a simple synthetic protocol for producing ultrastable silver nanoparticles, yielding a single-sized molecular product in very large quantities with quantitative yield and without the need for size sorting. The stability, purity and yield are substantially better than those for other metal nanoparticles, including gold, owing to an effective stabilization mechanism. The particular size and stoichiometry of the product were found to be insensitive to variations in synthesis parameters. The chemical stability and **structural**, electronic and optical properties can be understood using first-principles electronic structure theory based on an experimental single-crystal X-ray structure. Although several structures have been determined for protected gold nanoclusters, none has been reported so far for silver nanoparticles. The total structure of a thiolate-protected silver nanocluster reported here uncovers the unique structure of the silver thiolate protecting layer, consisting of Ag₂S₅ capping structures. The outstanding stability of the nanoparticle is attributed to a closed-shell 18-electron configuration with a large energy gap between the highest occupied molecular orbital and the lowest unoccupied molecular orbital, an ultrastable 32-silver-atom excavated-dodecahedral core consisting of a hollow 12-silver-atom icosahedron encapsulated by a 20-silver-atom dodecahedron, and the choice of protective coordinating ligands. The straightforward synthesis of large quantities of pure molecular product promises to make this class of materials widely available for further research and technology development. © 2013 Macmillan Publishers Limited. All rights reserved.

Репрезентативные документы

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Review

Atomically Precise Noble Metal Nanoclusters as Efficient Catalysts: A Bridge between Structure and Properties **499**
Du, Y., Sheng, H., ..., Zhu, M.
Chemical Reviews, 2020
Цитировал

Review

Tailoring the photoluminescence of atomically precise nanoclusters **436**
Kang, X., Zhu, M.
Chemical Society Reviews, 2019
Цитировал

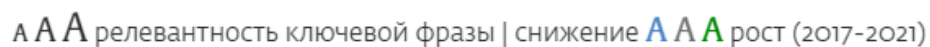
Review

Atomically Precise Clusters of Noble Metals: Emerging Link between Atoms and Nanoparticles **1189**
Chakraborty, I., Pradeep, T.
Chemical Reviews, 2017
Цитировал

Лучшие авторы по этой теме

Название	Documents
Zhu, Manzhou	132
Jin, Rongchao	97
Xie, Jianping	67
Pradeep, T.	66
Wang, Shuxin	64

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Recent progress in the development and properties of novel metal matrix nanocomposites reinforced with carbon nanotubes and graphene nanosheets

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Краткое описание

One-dimensional carbon nanotubes and two-dimensional graphene nanosheets with unique electrical, mechanical and thermal properties are attractive reinforcements for fabricating light weight, high strength and high performance metal-matrix composites. Rapid advances of nanotechnology in recent years enable the development of advanced metal matrix nanocomposites for structural engineering and functional device applications. This review focuses on the recent development in the synthesis, property characterization and application of aluminum, magnesium, and transition metal-based composites reinforced with carbon nanotubes and graphene nanosheets. These include processing strategies of carbonaceous nanomaterials and their composites, mechanical and tribological responses, corrosion, electrical and thermal properties as well as hydrogen storage and electrocatalytic behaviors. The effects of nanomaterial dispersion in the metal matrix and the formation of interfacial precipitates on these properties are also addressed. Particular attention is paid to the fundamentals and the structure-property relationships of such novel nanocomposites. © 2013 Elsevier B.V. All rights reserved.

Ключевые слова автора

Carbon nanotubes; Composites; Fabrication; Graphene; Mechanical property; Thermal property

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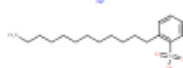


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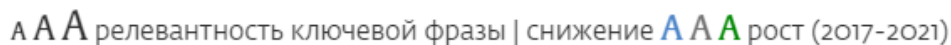
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