

Publications in reviewed international scientific journals (Total number: 422)

Publications in 2020 (2):

422 Xiang, R.; Inoue, T.; Zheng, Y.; Kumamoto, A.; Qian, Y.; Sato, Y.; Liu, M.; Tang, D.; Gokhale, D.; Guo, J.; Hisama, K.; Yotsumoto, S.; Ogamoto, T.; Arai, H.; Kobayashi, Y.; Zhang, H.; Hou, B.; Anisimov, A.; Maruyama, M.; Miyata, Y.; Okada, S.; Chiashi, S.; Li, Y.; Kong, J.; Kauppinen, E. I.; Ikuhara, Y.; Suenaga, K.; Maruyama, S. (2020) One-dimensional van der Waals heterostructures, *Science*. 367, 6477, 537-542. DOI: 10.1126/science.aaz2570.

421 Ding, E.-X.; Hussain, A.; Ahmad, S.; Zhang, Q.; Liao, Y.; Jiang, H.; Kauppinen, E. (2020) High-performance transparent conducting films of long single-walled carbon nanotubes synthesized from toluene alone. *Nano Research*. 13, 112–120.

Publications in 2019 (22):

420 Wei, N.; Laiho, P.; Khan, A. T.; Hussain, A.; Lyuleeva, A.; Ahmed, S.; Zhang, Q.; Liao, Y.; Tian, Y.; Ding, E.-X.; Ohno, Y.; Kauppinen, E. I. (2019) Fast and Ultraclean Approach for Measuring the Transport Properties of Carbon Nanotubes, *Advanced Functional Materials*. 1907150, DOI: 10.1002/adfm.201907150.

419 He, M.; Wang, X.; Zhang, S.; Jiang, H.; Cavalca, F.; Cui, H.; Wagner, J.; Hansen, T.; Kauppinen, E.; Zhang, J.; Ding, F. (2019) Growth kinetics of single-walled carbon nanotubes with a (2n, n) chirality selection, *Science Advances*. 5, 12, eaav9668.

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417 Mustonen, K.; Markevich, A.; Tripathi, M.; Inani, H.; Ding, E.; Hussain, A.; Mangler, C.; Kauppinen, E. I.; Kotakoski, J.; Susi, T. (2019) Electron-Beam Manipulation of Silicon Impurities in Single-Walled Carbon Nanotubes. *Advanced Functional Materials*. 1901327.

416 Inani, H.; Mustonen, K.; Markevich, A.; Ding, E.-X.; Tripathi, M.; Hussain, A.; Mangler, C.; Kauppinen, E.; Susi, T.; Kotakoski, J. (2019) Substitutional Si Doping of Graphene and Nanotubes through Ion Irradiation-Induced Vacancies. *Microscopy and Microanalysis*. 25, S2, 1574-1575.

415 Jeon, I.; Shawky, A.; Lin, H.; Seo, S.; Okada, H.; Lee, J.; Pal, A.; Tan, S.; Anisimov, A.; Kauppinen, E. I.; Yang, Y.; Manzhos, S.; Maruyama, S.; Matsuo, Y. (2019) Controlled Redox of Lithium-Ion Endohedral Fullerene for Efficient and Stable Metal Electrode-Free Perovskite Solar Cells. *J. Am. Chem. Soc.* 141, 42, 16553-16558.

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- 412 Diaz, M.; Jiang, H.; Kauppinen, E.; Sharma, R.; Balbuena, P. (2019) Can Single-Walled Carbon Nanotube Diameter Be Defined by Catalyst Particle Diameter? *J. Phys. Chem. C*, 123, 50, 30305-30317.
- 411 Ugur, N., Bimbo, L.M., Saris, P., Vartiainen, V., Hirvonen, J., Kauppinen, E.I. Raula, J. (2019) L-Leucine coated inhalable teicoplanin powders produced by aerosol flow reactor method, *J. Aerosol Medicine and Pulmonary Drug Delivery* 32, A18-19.
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- 409 Lee, J.-W., Jeon, I., Lin, H.-S., Seo, S., Han, T.-H., Anisimov, A., Kauppinen, E.I., Matsuo, Y., Maruyama, S., Yang, Y. (2019) Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells, *Nano Letters*, 19 (4), pp. 2223-2230.
- 408 Tonkikh, A.A., Tsebroy, V.I., Obratsova, E.A., Rybkovskiy, D.V., Orekhov, A.S., Kondrashov, I.I., Kauppinen, E.I., Chuvilin, A.L., Obratsova, E.D. (2019) Films of filled single-wall carbon nanotubes as a new material for high-performance air-sustainable transparent conductive electrodes operating in a wide spectral range, *Nanoscale*, 11 (14), pp. 6755-6765.
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- 405 Ahmad, S., Liao, Y., Hussain, A., Zhang, Q., Ding, E.-X., Jiang, H., Kauppinen, E.I. (2019) Systematic investigation of the catalyst composition effects on single-walled carbon nanotubes synthesis in floating-catalyst CVD, *Carbon*, 149, pp. 318-327.
- 404 He, M.; Li, D.; Yang, T.; Shang, D.; Chernov, A.I.; Fedotov, P.V.; Obratsova, E.D.; Liu, Q.; Jiang, H.; Kauppinen, E. (2019) A robust CoxMg1-xO catalyst for predominantly growing (6, 5) single-walled carbon nanotubes, *Carbon*, 153, pp. 389-395.
- 403 Ahmad, S.; Ding, E.-X.; Zhang, Q.; Jiang, H.; Sainio, J.; Tavakkoli, M.; Hussain, A.; Liao, Y.; Kauppinen, E.I. (2019) Roles of sulfur in floating-catalyst CVD growth of single-walled carbon nanotubes for transparent conductive film applications, *Chemical Engineering Journal*, 378, art. no. 122010.
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- 400 Tian, Y.; Wei, N.; Laiho, P.; Ahmad, S.; Magnin, Y.; Liao, Y.; Bichara, C.; Jiang, H.; Kauppinen, E. I. (2019) Cutting floating single-walled carbon nanotubes with a 'CO₂ blade'. *Carbon*. 143, 481-486.

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Publications in 2018 (24):

398 Rao, R.; Pint, C. L.; Islam, A. E.; Weatherup, R. S.; Hofmann, S.; Meshot, E. R.; Wu, F.; Zhou, C.; Dee, N.; Amama, P. B.; Carpena-Nunez, J.; Shi, W.; Plata, D. L.; Penev, E. S.; Yakobson, B. I.; Balbuena, P. B.; Bichara, C.; Futaba, D. N.; Noda, S.; Shin, H.; Kim, K. S.; Simard, B.; Mirri, F.; Pasquali, M.; Fornasiero, F.; Kauppinen, E. I.; Arnold, M.; Cola, B. A.; Nikolaev, P.; Arepalli, S.; Cheng, H. M.; Zakharov, D. N.; Stach, E. A.; Zhang, J.; Wei, F.; Terrones, M.; Geohegan, D. B.; Maruyama, B.; Maruyama, S.; Li, Y.; Adams, W. W.; Hart, A. J. (2018) Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. *ACS Nano*. 12, 12, 11756-11784.

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396 Jeon, I.; Delacou, C.; Okada, H.; Morse, G. E.; Han, T. H.; Sato, Y.; Anisimov, A.; Suenaga, K.; Kauppinen, E. I.; Maruyama, S.; Matsuo, Y. (2018) Polymeric acid-doped transparent carbon nanotube electrodes for organic solar cells with the longest doping durability. *JOURNAL OF MATERIALS CHEMISTRY*. A, 6, 30, 14553-14559.

395 Kämäräinen, T.; Ago, M.; Seitsonen, J.; Raula, J.; Kauppinen, E. I.; Ruokolainen, J.; Rojas, O. J. (2018) Harmonic analysis of surface instability patterns on colloidal particles. *Soft Matter*. 14, 17, 3387-3396.

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- 388 Ahmad, S.; Laiho, P.; Zhang, Q.; Jiang, H.; Hussain, A.; Liao, Y.; Ding, E. X.; Wei, N.; Kauppinen, E. I. (2018) Gas phase synthesis of metallic and bimetallic catalyst nanoparticles by rod-to-tube type spark discharge generator. *Journal of Aerosol Science*. 123, 208-218.
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- 385 Laiho, P.; Rafiee, M.; Liao, Y.; Hussain, A.; Ding, E.-X.; Kauppinen, E.I. (2018) Wafer-Scale Thermophoretic Dry Deposition of Single-Walled Carbon Nanotube Thin Films. *ACS Omega* 3, 1322-1328.
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- 382 He, M.; Magnin, Y.; Jiang, H.; Amara, H.; Kauppinen, E.I.; Loiseau, A.; Bichara, C. (2018) Growth modes and chiral selectivity of single-walled carbon nanotubes. *Nanoscale* 10, 6744-6750.
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- 380 Hussain, A.; Liao, Y.P.; Zhang, Q.; Ding, E.-X.; Laiho, P.; Ahmad, S.; Wei, N.; Tian, Y.; Jiang, H.; Kauppinen, E.I. (2018) Floating catalyst CVD synthesis of single walled carbon nanotubes from ethylene for high performance transparent electrodes. *Nanoscale* 10, 9752-9759.
- 379 Ding, E.-X.; Zhang, Q.; Wei, N.; Khan, A.; Kauppinen, E.I. (2018) High-performance single-walled carbon nanotube transparent conducting film fabricated by using low feeding rate of ethanol solution. *Royal Society Open Science* 5, DOI: 10.1098/rsos.180392.
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- 376 He, M., Wang, X., Zhang, L., Wu, Q.R., Song, X., Chernov, A., Fedotov, P., Obratsova, E.D., Sainio, J., Jiang, H., Cui, H.Z., Ding, F., Kauppinen, E.I. (2018) Anchoring effect of Ni²⁺ in stabilizing reduced metallic particles for growing single-walled carbon nanotubes. *Carbon* 128, 249-256.

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