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FULL PUBLICATION LIST

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Highly Cited Researcher by Clarivate Analytics 2018, H-index = 67 (WoS May 2020)

The 10 most significant publications, relevant for PI's current research:

1. O. Lopez-Acevedo, K.A. Kacprzak, J. Akola, **H. Häkkinen**, "Quantum size effects in ambient CO oxidation catalysed by ligand-protected gold clusters", *Nature Chem.* 2, 329 (2010).
2. **H. Häkkinen**, "The gold-sulfur interface at the nanoscale", *Nature Chem.* 4, 443 (2012). An invited review, WoS "highly cited" paper. It was listed in top-10 most cited papers in *Nature Chemistry* in 2016 by Google Scholar.
3. H. Yang, Y. Wang, H. Huang, L. Gell, L. Lehtovaara, S. Malola, **H. Häkkinen**, N. Zheng, "All- thiol-stabilized Ag₄₄ and Au₁₂Ag₃₂ nanoparticles with single-crystal structures", *Nature Comm.* 4, 2422 (2013). WoS "highly cited" paper.
4. V. Marjomäki, T. Lahtinen, M. Martikainen, J. Koivisto, S. Malola, K. Salorinne, M. Pettersson, **H. Häkkinen**, "Site-specific targeting of enterovirus capsid by functionalized monodisperse gold nanoclusters", *Proc. Natl. Acad. Sci. (USA)* 111, 1277 (2014).
5. M. Azubel, J. Koivisto, S. Malola, D. Bushnell, G.L. Hura, A.L. Koh, H. Tsunoyama, T. Tsukuda, M. Pettersson, **H. Häkkinen**, R.D. Kornberg, "Electron microscopy of gold nanoparticles at atomic resolution", *Science* 345, 909 (2014). WoS "highly cited" paper.
6. K. Salorinne, S. Malola, O.A. Wong, C.D. Rithner, X. Chen, C.J. Ackerson, **H. Häkkinen**, "Conformation and dynamics of the ligand shell of a water-soluble Au₁₀₂ nanoparticle", *Nature Comm.* 7, 10401 (2016).
7. H. Yang, Y. Wang, X. Chen, X. Zhao, L. Gu, H. Huang, J. Yan, C. Xu, G. Li, J. Wu, A.J. Edwards, B. Dittrich, Z. Tang, D. Wang, L. Lehtovaara, **H. Häkkinen** and N.F. Zheng, "Plasmonic twinned silver nanoparticles with molecular precision", *Nature Comm.* 7, 12809 (2016).
8. Q. Zhou, S. Kaappa, S. Malola, H. Lu, D. Guan, Y. Li, H. Wang, Z. Xie, Z. Ma, **H. Häkkinen**, N. Zheng, X. Yang, L. Zheng, "Real-Space Imaging with Pattern Recognition of a Ligand-Protected Ag₃₇₄ Nanocluster at Sub-Molecular Resolution", *Nature Comm.* 9, 2948 (2018).
9. M.R. Narouz, P.J. Unsworth, K. Salorinne, S. Takano, R. Tomihara, S. Kaappa, S. Malola, C.T. Dingh, J.D. Padmos, K. Ayoo, P.J. Garrett, M. Nambo, J. Hugh Horton, E.H. Sargent, **H. Häkkinen**, T. Tsukuda, C.M. Crudden, "N-Heterocyclic Carbene-Functionalized Magic Number Gold Nanoclusters", *Nature Chem.* 11, 419 (2019) (cover article 5/2019).
10. S. Malola, P. Nieminen, A. Pihlajamäki, J. Hämäläinen, T. Kärkkäinen, **H. Häkkinen**, "A method for structure prediction of metal-ligand interfaces of hybrid nanoparticles", *Nature Comm.* 2019 DOI: 10.1038/s41467-019-12031-w

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A. Peer-reviewed scientific articles

- (1) **H. Häkkinen**, S. Mäkinen and M. Manninen, "Positron states in dislocations: Shallow and deep traps", *Europhys. Lett.* **9**, 809-814 (1989).
- (2) **H. Häkkinen** and M. Manninen, "The effective-medium theory beyond the nearest-neighbour interaction", *J. Phys.: Condens. Matter* **1**, 9765-9777 (1989).
- (3) **H. Häkkinen**, S. Mäkinen and M. Manninen, "Edge dislocations in fcc-metals: Microscopic calculations of core structure and positron states in Al and Cu", *Phys. Rev. B* **41**, 12441-12453 (1990).
- (4) **H. Häkkinen**, J. Merikoski and M. Manninen, "Surface reconstruction and many-atom models", *J. Phys.: Condens. Matter* **3**, 2755-2767 (1991).
- (5) **H. Häkkinen**, J. Mansikka-aho and M. Manninen, "From the Huckel model to effective-medium theory", *J. Phys.: Condens. Matter* **3**, 7757-7762 (1991).
- (6) M. Manninen and **H. Häkkinen**, "A method for detecting vacancy diffusion in molecular dynamics", *J. Comp. Phys.* **100**, 197-199 (1992).
- (7) **H. Häkkinen** and M. Manninen, "Computer simulation of disordering and premelting of low-index faces of copper", *Phys. Rev. B* **46**, 1725-1742 (1992).
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