

Publications

Krishna Kanti Dey

1. Dynamic coupling at low Reynolds number
K. K. Dey
Angew. Chem, Int. Ed. **58(8), 2208-2228 (2019)**
2. Enhanced diffusion of passive tracers in active enzyme solutions
X. Zhao, K. K. Dey, S. Jeganathan, P. J. Butler, U. M. Córdova-Figueroa, A. Sen
Nano Lett. **17(8), 4807-4812 (2017)**
3. Exothermicity is not a necessary condition for enhanced diffusion of enzymes
P. Illien, X. Zhao, K. K. Dey, P. J. Butler, R. Golestanian, A. Sen
Nano Lett. **17(7), 4415-4420 (2017)**
4. Chemically propelled molecules and machines
K. K. Dey, A. Sen
J. Am. Chem. Soc. **139 (23), 7666-7676 (2017)**
5. Synthetic micro/nanomotors and pumps: fabrication and applications
F. Wong, K. K. Dey, A. Sen
Annu. Rev. Mater. Res. **46, 407-432 (2016)**
6. Catalytic motors - quo vadimus?
K. K. Dey, F. Wong, A. Altemose, A. Sen
Curr. Opin. Colloid Interface Sci. **21, 4-13 (2016)**
7. Dynamic coupling at the ångström scale
K. K. Dey, F. Y. Pong, J. Breffke, R. Pavlick, E. Hatzakis, C. Pacheco, A. Sen
Angew. Chem, Int. Ed. **55(3), 1113-1117 (2016)**
8. Micromotors powered by enzyme catalysis
K. K. Dey, X. Zhao, B. M. Tansi, W. J. Méndez-Ortiz, U. M. Córdova-Figueroa, R. Golestanian, A. Sen,
Nano Lett. **15, 8311-8315 (2015)**
9. Impulsive enzymes: a new force in mechanobiology
P. J. Butler, K. K. Dey, A. Sen
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10. Chemotactic separation of enzymes
K. K. Dey, S. Das, M. F. Poyton, S. Sengupta, P. J. Butler, P. S. Cremer, A. Sen
ACS Nano **8(12), 11941-11949 (2014)**
11. Self-powered enzyme micropumps
S. Sengupta, D. Patra, I. Ortiz-Rivera, A. Agrawal, S. Shklyaev, K. K. Dey, U. M. Córdova-Figueroa, T. E. Mallouk, A. Sen
Nat. Chem. **6, 415-422 (2014)**
12. DNA polymerase as molecular motor and pump
S. Sengupta, M. M. Spiering, K. K. Dey, W. Duan, D. Patra, P. J. Butler, R. D. Astumian, S. J. Benkovic, A. Sen
ACS Nano **8(3), 2410-2418 (2014)**
13. Multimodal chemo-magnetic control of self-propelling microbots
A. K. Singh, K. K. Dey, A. Chattopadhyay, T. K. Mandal, D. Bandyopadhyay
Nanoscale **6, 1398-1405 (2014)**
14. Micro- and nanoscale structures/systems and their applications in certain directions - a brief review

P. K. Choudhury, K. K. Dey, S. Basu

Nanoscale Spectroscopy with Applications, CRC Press, Florida (2013)

15. Enzyme molecules as nanomotors
S. Sengupta, K. K. Dey, H. S. Muddana, T. Tabouillot, M. E. Ibele, P. J. Butler, A. Sen
J. Am. Chem. Soc. 135(4), 1406-1414 (2013)
16. The pH taxis of an intelligent catalytic microbot
K. K. Dey, S. Bhandari, D. Bandyopadhyay, S. Basu, A. Chattopadhyay
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17. A catalytically driven organometallic molecular motor
R. A. Pavlick, K. K. Dey, A. Sirjoosingh, A. Benesi, A. Sen
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18. Optically definable reaction-diffusion-driven pattern generation of Ag-Au nanoparticles on templated surfaces
S. K. Gogoi, S. M. Borah, K. K. Dey, A. Paul, A. Chattopadhyay
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19. Stable magnetic chemical locomotive with Pd nanoparticle incorporated ferromagnetic oxide
K. K. Dey, K. K. Senapati, P. Phukan, S. Basu, A. Chattopadhyay
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20. Catalytic gold nanoparticle driven pH specific chemical locomotion
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21. Veering the motion of a magnetic chemical locomotive in a liquid
K. K. Dey, D. Sharma, S. Basu, A. Chattopadhyay
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22. Chemical locomotives based on polymer supported catalytic nanoparticles
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