

Table of contents

Nanotechnology

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« previous

Special issue on synaptic electronics

(<http://oas.iop.org/5c/iopscience.iop.org/1747944028/Middle/default/empty.gif/714a5a4a5031496f4154634141334358?x>)

Editorial

380201 Synaptic electronics Anna Demming, James K Gimzewski and Dominique Vuillaume
doi:10.1088/0957-4484/24/38/380201 (<http://dx.doi.org/10.1088/0957-4484/24/38/380201>) Abstract

Topical review

382001 Synaptic electronics: materials, devices and applications REVIEW ARTICLE Duygu Kuzum, Shimeng Yu and H-S Philip Wong doi:10.1088/0957-4484/24/38/382001 (<http://dx.doi.org/10.1088/0957-4484/24/38/382001>) Abstract References

Tutorial

383001 Memristor, Hodgkin–Huxley, and Edge of Chaos REVIEW ARTICLE Leon Chua doi:10.1088/0957-4484/24/38/383001 (<http://dx.doi.org/10.1088/0957-4484/24/38/383001>) Abstract References

Papers

384001 Molecular neuron based on the Franck–Condon blockade C Timm and M Di Ventra doi:10.1088/0957-4484/24/38/384001 (<http://dx.doi.org/10.1088/0957-4484/24/38/384001>) Abstract References

384002 Phase transitions enable computational universality in neuristor-based cellular automata Matthew D Pickett and R Stanley Williams doi:10.1088/0957-4484/24/38/384002 (<http://dx.doi.org/10.1088/0957-4484/24/38/384002>) Abstract References Supplementary data

384003 Synaptic plasticity and memory functions achieved in a WO_{3-x}-based nanoionics device by using the principle of atomic switch operation Rui Yang, Kazuya Terabe, Yiping Yao, Tohru Tsuruoka, Tsuyoshi Hasegawa, James K Gimzewski and Masakazu Aono doi:10.1088/0957-4484/24/38/384003 (<http://dx.doi.org/10.1088/0957-4484/24/38/384003>) Abstract References

384004 A theoretical and experimental study of neuromorphic atomic switch networks for reservoir computing Henry O Sillin, Renato Aguilera, Hsien-Hang Shieh, Audrius V Avizienis, Masakazu Aono, Adam Z Stieg and James K Gimzewski doi:10.1088/0957-4484/24/38/384004 (<http://dx.doi.org/10.1088/0957-4484/24/38/384004>) Abstract References Supplementary data

384005 Short-term memory of TiO₂-based electrochemical capacitors: empirical analysis with adoption of a sliding threshold Hyungkwang Lim, Inho Kim, Jin-Sang Kim, Cheol Seong Hwang and Doo Seok Jeong doi:10.1088/0957-4484/24/38/384005 (<http://dx.doi.org/10.1088/0957-4484/24/38/384005>) Abstract References

384006 Volatile and nonvolatile selective switching of a photo-assisted initialized atomic switch T Hino, T Hasegawa, H Tanaka, T Tsuruoka, K Terabe, T Ogawa and M Aono doi:10.1088/0957-4484/24/38/384006 (<http://dx.doi.org/10.1088/0957-4484/24/38/384006>) Abstract References

384007 A generic simulator for large networks of memristive elements Zoran Konkoli and Göran Wendin doi:10.1088/0957-4484/24/38/384007 (<http://dx.doi.org/10.1088/0957-4484/24/38/384007>) Abstract References

384008 Compact modeling of CRS devices based on ECM cells for memory, logic and neuromorphic applications E Linn, S Menzel, S Ferch and R Waser doi:10.1088/0957-4484/24/38/384008 (<http://dx.doi.org/10.1088/0957-4484/24/38/384008>) Abstract References

384009 Nanoscale RRAM-based synaptic electronics: toward a neuromorphic computing device Sangsu Park, Jinwoo Noh, Myung-iae Choo, Ahmad Muqeem Sheri, Man Chang, Young-Bae Kim, Chang Jung Kim, Moongu Jeon, Byung-Geun Lee, Byoung Hun Lee and Hyunsang Hwang doi:10.1088/0957-4484/24/38/384009 (<http://dx.doi.org/10.1088/0957-4484/24/38/384009>) Abstract References

384010 Integration of nanoscale memristor synapses in neuromorphic computing architectures Giacomo Indiveri, Bernabé Linares-Barranco, Robert Legenstein, George Deligeorgis and Themistoklis Prodromakis doi:10.1088/0957-4484/24/38/384010 (<http://dx.doi.org/10.1088/0957-4484/24/38/384010>) Abstract References

384011 A scalable neural chip with synaptic electronics using CMOS integrated memristors Jose M Cruz-Albrecht, Timothy Derosier and Narayan Srinivasa doi:10.1088/0957-4484/24/38/384011 (<http://dx.doi.org/10.1088/0957-4484/24/38/384011>) Abstract References

384012 Spike-timing dependent plasticity in a transistor-selected resistive switching memory S Ambrogio, S Balatti, F Nardi, S Facchinetti and D Ielmini doi:10.1088/0957-4484/24/38/384012 (<http://dx.doi.org/10.1088/0957-4484/24/38/384012>) Abstract References

384013 Neuromorphic function learning with carbon nanotube based synapses Karim Gacem, Jean-Marie Retrouvey, Djaafar Chabi, Arianna Filoramo, Weisheng Zhao, Jacques-Olivier Klein and Vincent Derycke doi:10.1088/0957-4484/24/38/384013 (<http://dx.doi.org/10.1088/0957-4484/24/38/384013>) Abstract References

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