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Onderzoeksoutput

Timmermans, M., van Oosterhout, K., Fattori, M., Harpe, P. J. A., Liu, Y.-H., & Cantatore, E. (2024). A 1.8-65 fJ/conv.-step 64 dB SNDR Continuous - Time Level Crossing ADC Exploiting Dynamic Self-Biasing Comparators. *IEEE Journal of Solid-State Circuits*, 59(4), 1194-1203. Artikel 10433522. <https://doi.org/10.1109/JSSC.2024.3352735>

Hu, L. S., Fattori, M., Schilp, W., Verbeek, R., Kazemzadeh, S., van de Burgt, Y., Kronemeijer, A. J., Gelinck, G., & Cantatore, E. (2023). An Energy-Efficient Solid-State Organic Device Array for Neuromorphic Computing. *IEEE Transactions on Electron Devices*, 70(12), 6520-6525. <https://doi.org/10.1109/TED.2023.3327947>

Genco, E., Garripoli, C., van der Steen, J. L. P. J., Gelinck, G. H., Abdinia, S., Harpe, P., & Cantatore, E. (2023). An EMG Interface Comprising a Flexible a-IGZO Active Electrode Matrix and a 65-nm CMOS IC. *IEEE Journal of Solid-State Circuits*, 58(11), 3138-3149. Artikel 10130814. <https://doi.org/10.1109/JSSC.2023.3274709>

Genco, E., Modena, F., Sarcina, L., Björkström, K., Brunetti, C., Caironi, M., Caputo, M., Demartis, V. M., Di Franco, C., Frusconi, G., Haeberle, L., Larizza, P., Mancini, M. T., Österbacka, R., Reeves, W., Scamarcio, G., Scandurra, C., Wheeler, M., Cantatore, E., ... Torsi, L. (2023). A Single-Molecule Bioelectronic Portable Array for Early Diagnosis of Pancreatic Cancer Precursors. *Advanced Materials*, 35(42), Artikel 2304102. <https://doi.org/10.1002/adma.202304102>

Zhang, Y., Xu, L., van der Ven, M., Ouzounov, S., Meftah, M., Mischi, M., Cantatore, E., & Harpe, P. (2023). A Front-end Amplifier with Fast Reset Scheme for Capacitive Heart Rate Monitoring. *IEEE Sensors Journal*, 23(15), 17025-17033. Artikel 10153990. <https://doi.org/10.1109/JSEN.2023.3284894>

Shen, Y., Li, H., Li, H., & Harpe, P. (2023). A Dynamic Resistive Temperature Sensor With Fully Integrated Corrections. *IEEE Solid-State Circuits Letters*, 6, 173-176. Artikel 10167723. <https://doi.org/10.1109/LSSC.2023.3290536>

Shen, Y., Li, H., Bindra, H. S., Cantatore, E., & Harpe, P. (2023). A 14-Bit Oversampled SAR ADC With Mismatch Error Shaping and Analog Range Compensation. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 70(5), 1719-1723. Artikel 10077761. <https://doi.org/10.1109/TCSII.2023.3259821>

Li, H., Shen, Y., Cantatore, E., & Harpe, P. (2023). A 77.3-dB SNDR 62.5-kHz Bandwidth Continuous-Time Noise-Shaping SAR ADC With Duty-Cycled G_m -C Integrator. *IEEE Journal of Solid-State Circuits*, 58(4), 939-948. Artikel 9989513. <https://doi.org/10.1109/JSSC.2022.3227678>

Zhang, Y., Xu, L., van der Ven, M., Ouzounov, S. F., Meftah, M., Mischi, M., Cantatore, E., & Harpe, P. J. A. (2023). Comparison and Integration of Voltage and Charge Amplifiers for Capacitive ECG Measurements. *IEEE Transactions on Biomedical Engineering*, 70(2), 501-510. <https://doi.org/10.1109/TBME.2022.3195771>

Portilla, L., Loganathan, K., Faber, H., Eid, A., Hester, J. G. D., Tentzeris, M. M., Fattori, M., Cantatore, E., Jiang, C., Nathan, A., Fiori, G., Ibn-Mohammed, T., Anthopoulos, T. D., & Pecunia, V. (2023). Wirelessly powered large-area electronics for the Internet of Things. *Nature Electronics*, 6(1), 10-17. <https://doi.org/10.1038/s41928-022-00898-5>

Li, H., Shen, Y., Cantatore, E., & Harpe, P. (2022). Small-Area SAR ADCs With a Compact Unit-Length DAC Layout. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 69(10), 4038-4042. Artikel 9805764. <https://doi.org/10.1109/TCSII.2022.3186064>

- Shen, Y., Li, H., Cantatore, E., & Harpe, P. (2022). A 2.2 fJ/Conversion-Step 9.74-ENOB 10 MS/s SAR ADC With 1.5×Input Range. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 69(9), 3660-3664. Artikel 9792383. <https://doi.org/10.1109/TCSII.2022.3181691>
- Li, H., Shen, Y., Xin, H., Cantatore, E., & Harpe, P. (2022). A 7.3-μ W 13-ENOB 98-dB SFDR Noise-Shaping SAR ADC With Duty-Cycled Amplifier and Mismatch Error Shaping. *IEEE Journal of Solid-State Circuits*, 57(7), 2078-2089. Artikel 9766432. <https://doi.org/10.1109/JSSC.2022.3168588>
- Pelzers, K., Xin, H., Cantatore, E., & Harpe, P. (2022). A Compact 0.0054 mm²Multipurpose Analog Frontend for Ultrasound Digitizers in 40nm CMOS. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 69(5), 2483-2487. Artikel 9740227. <https://doi.org/10.1109/TCSII.2022.3161867>
- Zhou, M., Chen, P., Pollet, A. M. A. O., Ouzounov, S., den Toonder, J. M. J., Mischi, M., Cantatore, E., & Harpe, P. (2022). A Prototype System with Custom-Designed RX ICs for Contrast-Enhanced Ultrasound Imaging. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, 69(5), 1649-1660. <https://doi.org/10.1109/TUFFC.2022.3161226>
- Fattori, M., Cardarelli, S., Fijn, J., Harpe, P., Charbonneau, M., Locatelli, D., Lombard, S., Laugier, C., Tournon, L., Jacob, S., Romanjek, K., Coppard, R., Gold, H., Adler, M., Zirkl, M., Groten, J., Tschepp, A., Lamprecht, B., Postl, M., ... Cantatore, E. (2022). A printed proximity-sensing surface based on organic pyroelectric sensors and organic thin-film transistor electronics. *Nature Electronics*, 5(5), 289-299. <https://doi.org/10.1038/s41928-022-00762-6>
- Shen, Y., Li, H., Xin, H., Cantatore, E., & Harpe, P. (2022). A 103-dB SFDR Calibration-Free Oversampled SAR ADC with Mismatch Error Shaping and Pre-Comparison Techniques. *IEEE Journal of Solid-State Circuits*, 57(3), 734-744. Artikel 9663409. <https://doi.org/10.1109/JSSC.2021.3135559>
- Xin, H., Baltus, P., Cantatore, E., & Harpe, P. (2022). A 0.32 nW-1.07 μW All-Dynamic Versatile Resistive Sensor Interface With System-Level Ratiometric Measurement. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 69(2), 506-517. Artikel 9581290. <https://doi.org/10.1109/TCSI.2021.3119541>
- Zhou, M., Ouzounov, S., Cantatore, E., & Harpe, P. (2021). An RX AFE with Programmable BP Filter and Digitization for Ultrasound Harmonic Imaging. *IEEE Transactions on Biomedical Circuits and Systems*, 15(6), 1430-1440. <https://doi.org/10.1109/TBCAS.2021.3135859>
- Fattori, M., & Cantatore, E. (2021). New Frontiers in Smart Sensors Based on Printed Organic Electronics. *ECS Meeting Abstracts, MA2021-01(35)*, 1117-1117. <https://doi.org/10.1149/ma2021-01351117mtgabs>
- Berkol, G., Baltus, P. G. M., Harpe, P. J. A., & Cantatore, E. (2021). A 1.25 μJ per Measurement Ultrasound Rangefinder System in 65nm CMOS for Explorations With a Swarm of Sensor Nodes. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 68(4), 1409-1420. Artikel 9329156. <https://doi.org/10.1109/TCSI.2021.3049246>
- Ragonese, E., Fattori, M., & Cantatore, E. (2021). Printed Organic Electronics on Flexible Foil: Circuit Design and Emerging Applications. *IEEE Transactions on Circuits and Systems II: Express Briefs*, 68(1), 42-48. Artikel 9270576. <https://doi.org/10.1109/TCSII.2020.3040707>
- Xin, H., Pelzers, K., Baltus, P., Cantatore, E., & Harpe, P. (2020). A Compact Fully Dynamic Capacitance-to-Digital Converter with Energy-Efficient Charge Reuse. *IEEE Solid-State Circuits Letters*, 3, 514-517. Artikel 9249050. <https://doi.org/10.1109/LSSC.2020.3036223>
- Zulqarnain, M., Stanzione, S., Rathinavel, G., Smout, S., Willegems, M., Myny, K., & Cantatore, E. (2020). A flexible ECG patch compatible with NFC RF communication. *npj Flexible Electronics*, 4(1), Artikel 13. <https://doi.org/10.1038/s41528-020-0077-x>

Shen, Y., Li, H., Cantatore, E., & Harpe, P. (2020). A 0.38-pJ/b Simplex and a 1.2-pJ/b Full-Duplex Chip-to-Chip Digital Communication Interface with Data Rate and Load Capacitance Adaptability. *IEEE Solid-State Circuits Letters*, 3, 322-325. Artikel 9171283. <https://doi.org/10.1109/LSSC.2020.3017874>

Pelzers, K., Xin, H., Cantatore, E., & Harpe, P. (2020). A 2.18pJ/conversion, $1656\mu\text{m}^2$ Temperature Sensor with a 0.61pJ K^2 FoM and 52-pW Stand-By Power. *IEEE Solid-State Circuits Letters*, 3, 82-85. Artikel 9129838. <https://doi.org/10.1109/LSSC.2020.3005784>

Berkol, G., Baltus, P. G. M., Harpe, P. J. A., & Cantatore, E. (2020). A 2.67 μJ per Measurement FMCW Ultrasound Rangefinder System for the Exploration of Enclosed Environments. *IEEE Solid-State Circuits Letters*, 3, 326-329. Artikel 9174634. <https://doi.org/10.1109/LSSC.2020.3018791>

Fattori, M., Fijn, J., Harpe, P., Charbonneau, M., Lombard, S., Romanjek, K., Locatelli, D., Tournon, L., Laugier, C., & Cantatore, E. (2019). A gravure-printed organic TFT technology for active-matrix addressing applications. *IEEE Electron Device Letters*, 40(10), 1682-1685. Artikel 8822469. <https://doi.org/10.1109/LED.2019.2938852>

Xin, H., Andraud, M., Baltus, P., Cantatore, E., & Harpe, P. (2019). A 0.1-nW-1- μW energy-efficient all-dynamic versatile capacitance-to-digital converter. *IEEE Journal of Solid-State Circuits*, 54(7), 1841-1851. Artikel 8672469. <https://doi.org/10.1109/JSSC.2019.2902754>

Zulqarnain, M., Stanzone, S., van der Steen, J. L. P. J., Gelinck, G., Abdinia, S., & Cantatore, E. (2019). Design trade-offs in amorphous indium gallium zinc oxide thin film transistor based bio-signal sensing front-ends. *Flexible and Printed Electronics*, 4(1), Artikel 014001. <https://doi.org/10.1088/2058-8585/aaf4d3>

Castellanos, J. C., Turhan, M., Hendrix, M. A. M., van Roermund, A., & Cantatore, E. (2018). Dimmable integrated CMOS LED driver based on a resonant DC/DC hybrid-switched capacitor converter. *International Journal of Circuit Theory and Applications*, 46(8), 1485-1502. <https://doi.org/10.1002/cta.2512>

Castellanos, J. C., Turhan, M., & Cantatore, E. (2018). A 93.3% peak-efficiency self-resonant hybrid-switched-capacitor LED driver in 0.18- μm CMOS technology. *IEEE Journal of Solid-State Circuits*, 53(7), 1924-1935. Artikel 8353793. <https://doi.org/10.1109/JSSC.2018.2828097>

Fattori, M., Abdinia, S., Cantatore, E., Pauer, G., Stadlober, B., Gold, H., Socratous, J., & Torricelli, F. (2018). Organic pressure sensing surfaces fabricated by lamination of flexible substrates. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, 8(7), 1159-1166. Artikel 8307231. <https://doi.org/10.1109/TCPMT.2018.2799700>

Xin, H., Andraud, M. N., Baltus, P. G. M., Cantatore, E., & Harpe, P. J. A. (2018). A 174 pW-488.3 nW 1 S/s-100 kS/s all-dynamic resistive temperature sensor with speed/resolution/resistance adaptability. *IEEE Solid-State Circuits Letters*, 1(3), 70-73. Artikel 08340145. <https://doi.org/10.1109/LSSC.2018.2827883>

Houin, G., Duez, F., Garcia, L., Cantatore, E., Hirsch, L., Belot, D., Pellet, C., & Abbas, M. (2017). Device engineering for high-performance, low-voltage operating organic field effect transistor on plastic substrate. *Flexible and Printed Electronics*, 2(4), Artikel 045004. <https://doi.org/10.1088/2058-8585/aa8cb1>

Garripoli, C., van der Steen, J. L., Torricelli, F., Ghittorelli, M., Gelinck, G. H., van Roermund, A. H. M., & Cantatore, E. (2017). Analogue frontend amplifiers for bio-potential measurements manufactured with a-IGZO TFTs on flexible substrate. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, 7(1), 60-70. Artikel 7733099. <https://doi.org/10.1109/JETCAS.2016.2616723>

Ghittorelli, M., Torricelli, F., Garripoli, C., van der Steen, J. L., Gelinck, G. H., Cantatore, E., Colalongo, L., & Kovács-Vajna, Z. M. (2017). Unified physical DC model of staggered amorphous InGaZnO transistors. *IEEE Transactions on Electron Devices*, 64(3), 1076 - 1082. Artikel 7820165. <https://doi.org/10.1109/TED.2016.2646369>

- Song, S., Rooijackers, M. J., Harpe, P., Rabotti, C., Mischi, M., Van Roermund, A. H. M., & Cantatore, E. (2016). A noise reconfigurable current-reuse resistive feedback amplifier with signal-dependent power consumption for fetal ECG monitoring. *IEEE Sensors Journal*, 16(23), 8304-8313. Artikel 7508439. <https://doi.org/10.1109/JSEN.2016.2589281>
- Torricelli, F., Colalongo, L., Raiteri, D., Kovacs-Vajna, Z. M., & Cantatore, E. (2016). Ultra-high gain diffusion-driven organic transistor. *Nature Communications*, 7, 1-9. Artikel 10550. <https://doi.org/10.1038/ncomms10550>
- Torricelli, F., Ghittorelli, M., Smits, E. C. P., Roelofs, C., Janssen, R. A. J., Gelinck, G. H., Kovács-Vajna, Z. M., & Cantatore, E. (2016). Ambipolar organic tri-gate transistor for low-power complementary electronics. *Advanced Materials*, 28(2), 284-290. <https://doi.org/10.1002/adma.201503414>
- Harpe, P. J. A., Gao, H., van Dommele, A. R., Cantatore, E., & van Roermund, A. H. M. (2016). A 0.20 mm² 3 nW signal acquisition IC for miniature sensor nodes in 65 nm CMOS. *IEEE Journal of Solid-State Circuits*, 51(1), 240-248. <https://doi.org/10.1109/JSSC.2015.2487270>
- Fiore, V., Battiato, P., Abdinia, S., Jacobs, S., Chartier, I., Coppard, R., Klink, G., Cantatore, E., Ragonese, E., & Palmisano, G. (2015). An integrated 13.56-MHz RFID tag in a printed organic complementary TFT technology on flexible substrate. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 62(6), 1668-1677. Artikel 7108060. <https://doi.org/10.1109/TCSI.2015.2415175>
- Abdinia, S., Ke, T. H., Ameys, M., Li, J., Steudel, S., Vandersteen, J. L., Cobb, B., Torricelli, F., Van Roermund, A., & Cantatore, E. (2015). Organic CMOS line drivers on foil. *IEEE/OSA Journal of Display Technology*, 11(6), 564-569. Artikel 7083700. <https://doi.org/10.1109/JDT.2015.2421344>
- Song, S., Rooijackers, M., Harpe, P., Rabotti, C., Mischi, M., van Roermund, A. H. M., & Cantatore, E. (2015). A Low-Voltage Chopper-Stabilized Amplifier for Fetal ECG Monitoring With a 1.41 Power Efficiency Factor. *IEEE Transactions on Biomedical Circuits and Systems*, 9(2), 237-247. <https://doi.org/10.1109/TBCAS.2015.2417124>
- Porrizzo, S., Morgado, A., San Segundo Bello, D., Van Hoof, C., Yazicioglu, R. F., van Roermund, A. H. M., & Cantatore, E. (2015). A design methodology for power-efficient reconfigurable SC $\Delta\Sigma$ modulators. *International Journal of Circuit Theory and Applications*, 43(8), 1024-1041. <https://doi.org/10.1002/cta.1992>
- Torricelli, F., Ghittorelli, M., Rapisarda, M., Valletta, A., Mariucci, L., Jacob, S., Coppard, R., Cantatore, E., Kovács-Vajna, Z. M., & Colalongo, L. (2015). Unified drain-current model of complementary p- and n-type OTFTs. *Organic Electronics*, 22, 5-11. <https://doi.org/10.1016/j.orgel.2015.03.021>
- Raiteri, D., Roermund, van, A. H. M., & Cantatore, E. (2014). A discrete-time amplifier based on Thin-Film Trans-Capacitors for sensor systems on foil. *Microelectronics Journal*, 45(12), 1612-1620. <https://doi.org/10.1016/j.mejo.2014.09.002>
- Rooijackers, M. J., Song, S., Rabotti, C., Oei, S. G., Bergmans, J. W. M., Cantatore, E., & Mischi, M. (2014). Influence of electrode placement on signal quality for ambulatory pregnancy monitoring. *Computational and Mathematical Methods in Medicine*, 2014, 960980-1/12. <https://doi.org/10.1155/2014/960980>
- Raiteri, D., Lieshout, van, P., Roermund, van, A. H. M., & Cantatore, E. (2014). Positive-feedback level shifter logic for large-area electronics. *IEEE Journal of Solid-State Circuits*, 49(2), 524-535. <https://doi.org/10.1109/JSSC.2013.2295980>
- Abdinia, S., Torricelli, F., Maiellaro, G., Coppard, R., Daami, A., Jacob, S., Mariucci, L., Palmisano, G., Ragonese, E., Tramontana, F., Roermund, van, A. H. M., & Cantatore, E. (2014). Variation-based design of an AM demodulator in a printed complementary organic technology. *Organic Electronics*, 15(4), 904-912. <https://doi.org/10.1016/j.orgel.2014.01.021>

Harpe, P. J. A., Cantatore, E., & Roermund, van, A. H. M. (2013). A 10b/12b 40kS/s SAR ADC with Data-Driven Noise Reduction achieving up to 10.1b ENOB at 2.2fJ/conversion-step. *IEEE Journal of Solid-State Circuits*, 48(12), 3011-3018. <https://doi.org/10.1109/JSSC.2013.2278471>

Porrizzo, S., Morgado, A., San Segundo Bello, D., Cannillo, F., Van Hoof, C., Yazicioglu, R. F., Roermund, van, A., & Cantatore, E. (2013). A 155 μ W 88-dB DR discrete-time delta-sigma modulator for digital hearing aids exploiting a summing SAR ADC Quantizer. *IEEE Transactions on Biomedical Circuits and Systems*, 7(5), 573-582. <https://doi.org/10.1109/TBCAS.2013.2280694>

Maiellaro, G., Ragonese, E., Castorina, A., Jacob, S., Benwadih, M., Coppard, R., Cantatore, E., & Palmisano, G. (2013). High-gain operational transconductance amplifiers in a printed complementary organic TFT technology on flexible foil. *IEEE Transactions on Circuits and Systems. I, Fundamental Theory and Applications*, 60(12), 3117-3125. <https://doi.org/10.1109/TCSI.2013.2255651>

Jacob, S., Abdinia, S., Benwadih, M., Bablet, J., Chartier, I., Gwoziecki, R., Cantatore, E., Roermund, van, A. H. M., Maddiona, L., Tramontana, F., Maiellaro, G., Mariucci, L., Rapisarda, M., Palmisano, G., & Coppard, R. (2013). High performance printed N and P-type OTFTs enabling digital and analog complementary circuits on flexible plastic substrate. *Solid-State Electronics*, 84, 167-178. <https://doi.org/10.1016/j.sse.2013.02.022>

Coppard, R., Jacob, S., Charbonneau, M., Benwadih, M., Bablet, J., Fischer, V., Gwoziecki, R., Chartier, I., Abdinia, S., Cantatore, E., Maddiona, L., Maiellaro, G., Mariucci, L., Rapisarda, M., & Tramontana, F. (2013). Printed organic TFTs on flexible substrate for complementary circuits. *ECS Transactions*, 54(1), 153-163. <https://doi.org/10.1149/05401.0153ecst>

Porrizzo, S., Cannillo, F., Van Hoof, C., Cantatore, E., & Roermund, van, A. H. M. (2012). A power-optimal design methodology for high-resolution low-bandwidth SC $\Delta\Sigma$ Modulators. *IEEE Transactions on Instrumentation and Measurement*, 61(11), 2896-2904. <https://doi.org/10.1109/TIM.2012.2200812>

Torricelli, F., O'Neill, K., Gelinck, G. H., Myny, K., Genoe, J., & Cantatore, E. (2012). Charge transport in organic transistors accounting for a wide distribution of carrier energies, Part II : TFT modeling. *IEEE Transactions on Electron Devices*, 59(5), 1520-1528. <https://doi.org/10.1109/TED.2012.2184764>

Roelofs, W. S. C., Mathijssen, S. G. J., Bijleveld, J. C., Raiteri, D., Geuns, T. C. T., Kemerink, M., Cantatore, E., Janssen, R. A. J., & Leeuw, de, D. M. (2011). Fast ambipolar integrated circuits with poly(diketopyrrolopyrrole-terthiophene). *Applied Physics Letters*, 98(20), 203301-1/3. Artikel 203301. <https://doi.org/10.1063/1.3589986>

Torricelli, F., Smits, E. C. P., Meijboom, J. R., Tripathi, A. K., Gelinck, G. H., Colalongo, L., Kovacs-Vajna, Z. M., & Cantatore, E. (2011). Transport physics and device modeling of zinc oxide thin film transistors - part II : contact resistance in short channel devices. *IEEE Transactions on Electron Devices*, 58(9), 3025-3033. <https://doi.org/10.1109/TED.2011.2159929>

Torricelli, F., Meijboom, J. R., Smits, E. C. P., Tripathi, A. K., Ferroni, M., Federici, S., Gelinck, G. H., Colalongo, L., Kovacs-Vajna, Z. M., Leeuw, de, D. M., & Cantatore, E. (2011). Transport physics and device modeling of zinc oxide thin film transistors - part I: Long channel devices. *IEEE Transactions on Electron Devices*, 58(8), 2610-2619. <https://doi.org/10.1109/TED.2011.2155910>

Belleville, M., Fanet, H., Fiorini, P., Nicole, P., Pelgrom, M., Piguet, C., Hahn, R., Van Hoof, C., Vullers, R. J. M., Tartagni, M., & Cantatore, E. (2010). Energy autonomous sensor systems : towards a ubiquitous sensor technology. *Microelectronics Journal*, 41(11), 740-745. <https://doi.org/10.1016/j.mejo.2010.01.009>

Gholamrezaie, F., Mathijssen, S. G. J., Smits, E. C. P., Geuns, T. C. T., Hal, van, P. A., Ponomarenko, S. A., Flesch, H.-G., Resel, R., Cantatore, E., Blom, P. W. M., & Leeuw, de, D. M. (2010). Ordered semiconducting self-assembled monolayers on polymeric surfaces utilized in organic integrated circuits. *Nano Letters*, 10(6), 1998-2002. <https://doi.org/10.1021/nl9032268>

- Leeuw, de, D. M., & Cantatore, E. (2009). Organic electronics: materials, technology and circuit design developments enabling new applications. *Materials Science in Semiconductor Processing*, 11(5), 199-204. <https://doi.org/10.1016/j.mssp.2008.10.001>
- Smits, E. C. P., Mathijssen, S. G. J., Hal, van, P. A., Setayesh, S., Geuns, T. C. T., Mutsaers, T. C. T., Cantatore, E., Wondergem, H. J., Werzer, O., Resel, R., Kemerink, M., Kirchmeyer, S., Muzafarov, A. M., Ponomarenko, S. A., Boer, de, B., Blom, P. W. M., & Leeuw, de, D. M. (2008). Bottom-up organic integrated circuits. *Nature*, 455, 956-959. <https://doi.org/10.1038/nature07320>
- Smith, J., Hamilton, R., Heeney, M., Leeuw, de, D. M., Cantatore, E., Anthony, J. E., McCulloch, I., Bradley, D. D. C., & Athopoulos, T. D. (2008). High-performance organic integrated circuits based on solution processable polymer-small molecule blends. *Applied Physics Letters*, 93(25), 253301-1-3. Artikel 253301. <https://doi.org/10.1063/1.3050525>
- Spijkman, M., Smits, E. C. P., Blom, P. W. M., Leeuw, de, D. M., Bon Saint Come, Y., Setayesh, S., & Cantatore, E. (2008). Increasing the noise margin in organic circuits using dual gate field-effect transistors. *Applied Physics Letters*, 92(14), 143304-1/3. Artikel 143304. <https://doi.org/10.1063/1.2904624>
- Cantatore, E., Geuns, T. C. T., Gelinck, G. H., Veenendaal, van, E., Gruijthuisen, A. F. A., Schrijnemakers, L., Drews, S., & Leeuw, de, D. M. (2007). A 13.56 MHz RFID system based on organic transponders. *IEEE Journal of Solid-State Circuits*, 42(1), 84-92. <https://doi.org/10.1109/JSSC.2006.886556>
- Anthopoulos, T. D., Setayesh, S., Smits, E. C. P., Cölle, M., Cantatore, E., Boer, de, B., Blom, P. W. M., & Leeuw, de, D. M. (2006). Air-stable complementary-like circuits based on organic ambipolar transistors. *Advanced Materials*, 18(14), 1900-1904. <https://doi.org/10.1002/adma.200502677>
- Cantatore, E., & Ouwerkerk, M. (2006). Energy scavenging and power management in networks of autonomous microsensors. *Microelectronics Journal*, 37(12), 1584-1590. <https://doi.org/10.1016/j.mejo.2006.04.014>
- Anthopoulos, T. D., Leeuw, de, D. M., Cantatore, E., Hof, van 't, P., Alma, J., & Hummelen, J. C. (2005). Solutions processible organic transistors and circuits based on a C70 methanofullerene. *Journal of Applied Physics*, 98(5), 054503-1/6. Artikel 054503. <https://doi.org/10.1063/1.2034083>
- Anthopoulos, T. D., de Leeuw, D. M., Cantatore, E., Setayesh, S., Meijer, E. J., Tanase, C., Hummelen, J. C., & Blom, P. W. M. (2004). Organic complementary-like inverters employing methanofullerene-based ambipolar field-effect transistors. *Applied Physics Letters*, 85(18), 4205-4207. <https://doi.org/10.1063/1.1812577>
- Huitema, H. E. A., Gelinck, G. H., van der Putten, J. B. P. H., Kuijk, K. E., Hart, C. M., Cantatore, E., & De Leeuw, D. M. (2002). Active-matrix displays driven by solution processed polymeric transistors. *Advanced Materials*, 14(17). [https://doi.org/10.1002/1521-4095\(20020903\)14:17<1201::AID-ADMA1201>3.0.CO;2-5](https://doi.org/10.1002/1521-4095(20020903)14:17<1201::AID-ADMA1201>3.0.CO;2-5)
- Huitema, E., Gelinck, G., Van Der Putten, B., Cantatore, E., Kuijk, K., Hart, K., & De Leeuw, D. (2002). Polymer-based transistors used as pixel switches in active-matrix displays. *Journal of the Society for Information Display*, 10(3), 195-202. <https://doi.org/10.1889/1.1827867>
- Huitema, H. E. A., Gelinck, G. H., van der Putten, J. B. P. H., Kuijk, K. E., Hart, C. M., Cantatore, E., Herwig, P. T., Van Breemen, A. J. J. M., & De Leeuw, D. M. (2001). Plastic transistors in active-matrix displays: The handling of grey levels by these large displays paves the way for electronic paper. *Nature*, 414(6864), 599. <https://doi.org/10.1038/414599a>
- Zilker, S. J., Detcherry, C., Cantatore, E., & De Leeuw, D. M. (2001). Bias stress in organic thin-film transistors and logic gates. *Applied Physics Letters*, 79(8), 1124-1126. <https://doi.org/10.1063/1.1394718>
- Snoeyts, W., Anelli, G., Campbell, M., Cantatore, E., Faccio, F., Heijne, E. H. M., Jarron, P., Kloukinas, K. C., Marchioro, A., Moreira, P., Toifl, T., & Wyllie, K. (2000). Integrated circuits for particle physics experiments. *IEEE Journal of Solid-State Circuits*, 35(12), 2018-2030. Artikel 890318. <https://doi.org/10.1109/4.890318>

