Resource Summary Report

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COMSOL Multiphysics

RRID:SCR_014767
Type: Tool

Proper Citation

COMSOL Multiphysics (RRID:SCR_014767)

Resource Information

URL: https://www.comsol.com/comsol-multiphysics

Proper Citation: COMSOL Multiphysics (RRID:SCR_014767)

Description: General-purpose software platform for modeling and simulating physics-based problems which accounts for coupled or multiphysics phenomena. The platform includes a set of core physics interfaces for common physics application areas such as structural analysis, laminar flow, pressure acoustics, transport of diluted species, electrostatics, electric currents, heat transfer, and Joule heating.

Resource Type: simulation software, software application, software resource

Keywords: simulation software, software platform, physics, problem solver

Funding:

Availability: Commercially available

Resource Name: COMSOL Multiphysics

Resource ID: SCR_014767

License URLs: https://www.comsol.com/company/privacy/

Record Creation Time: 20220129T080322+0000

Record Last Update: 20250331T061249+0000

Ratings and Alerts

No rating or validation information has been found for COMSOL Multiphysics.

No alerts have been found for COMSOL Multiphysics.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 35 mentions in open access literature.

Listed below are recent publications. The full list is available at FDI Lab - SciCrunch.org.

Uppinakudru AP, et al. (2024) Comparison of radiant intensity in aqueous media using experimental and numerical simulation techniques. Open research Europe, 4, 18.

Zhang Y, et al. (2024) Penetrating the ultra-tough yeast cell wall with finite element analysis model-aided design of microtools. iScience, 27(4), 109503.

Baek J, et al. (2024) All-dielectric polarization-sensitive metasurface for terahertz polarimetric imaging. Scientific reports, 14(1), 7544.

Dias T, et al. (2024) An electro-optical platform for the ultrasensitive detection of small extracellular vesicle sub-types and their protein epitope counts. iScience, 27(6), 109866.

Sagalajev B, et al. (2024) Absence of paresthesia during high-rate spinal cord stimulation reveals importance of synchrony for sensations evoked by electrical stimulation. Neuron, 112(3), 404.

England SJ, et al. (2023) Static electricity passively attracts ticks onto hosts. Current biology : CB, 33(14), 3041.

Peng R, et al. (2023) In-depth understanding of boosting salinity gradient power generation by ionic diode. iScience, 26(7), 107184.

Tang ZL, et al. (2023) Topology optimization for near-junction thermal spreading of electronics in ballistic-diffusive regime. iScience, 26(7), 107179.

Glover JD, et al. (2023) The developmental basis of fingerprint pattern formation and variation. Cell, 186(5), 940.

Li M, et al. (2022) Tuning the surface potential to reprogram immune microenvironment for bone regeneration. Biomaterials, 282, 121408.

Sótér A, et al. (2022) High-resolution laser resonances of antiprotonic helium in superfluid 4He. Nature, 603(7901), 411.

Naughton JR, et al. (2022) Suppression of crosstalk in multielectrode arrays with local shielding. Frontiers in nanotechnology, 4.

Nasrollahzadeh N, et al. (2022) Temperature evolution following joint loading promotes chondrogenesis by synergistic cues via calcium signaling. eLife, 11.

Yao M, et al. (2021) A multiwell plate-based system for toxicity screening under multiple static or cycling oxygen environments. Scientific reports, 11(1), 4020.

Sercel AJ, et al. (2021) Stable transplantation of human mitochondrial DNA by high-throughput, pressurized isolated mitochondrial delivery. eLife, 10.

Wang S, et al. (2021) Effects of pulse parameters on the temperature distribution of a human head exposed to the electromagnetic pulse. Scientific reports, 11(1), 22938.

Schrock LE, et al. (2021) 7T MRI and Computational Modeling Supports a Critical Role of Lead Location in Determining Outcomes for Deep Brain Stimulation: A Case Report. Frontiers in human neuroscience, 15, 631778.

Zhang J, et al. (2021) Primary human colonic mucosal barrier crosstalk with super oxygen-sensitive Faecalibacterium prausnitzii in continuous culture. Med (New York, N.Y.), 2(1), 74.

Oesterle J, et al. (2020) Bayesian inference for biophysical neuron models enables stimulus optimization for retinal neuroprosthetics. eLife, 9.

Nafian F, et al. (2020) A lab-on-a-chip model of glaucoma. Brain and behavior, 10(10), e01799.