

Resource Summary Report

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GROMACS

RRID:SCR_014565

Type: Tool

Proper Citation

GROMACS (RRID:SCR_014565)

Resource Information

URL: <http://www.gromacs.org>

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Description: Software package created to perform molecular dynamics. Molecular dynamics package mainly designed for simulations of proteins, lipids, and nucleic acids. Can also be used for research on non-biological systems, such as polymers.

Synonyms: Gromacs

Resource Type: software toolkit, software application, simulation software, software resource

Defining Citation: [PMID:26620784](#), [DOI:10.1016/0010-4655\(95\)00042-E](#)

Keywords: simulation, molecular dynamics, software package, software toolkit, biochemical, molecule, protein, lipid, nucleic acid, bond interaction, bio.tools

Funding: European Research Council ;
Swedish eScience Research Center ;
Stream Computing Performance Engineers ;
Nvidia ;
Swedish Research Council ;
Swedish Foundation for Strategic Research ;
Swedish National Infrastructure for Computing ;
Swedish Foundation for International Cooperation in Research and Higher Education

Availability: Free, Available for download

Resource Name: GROMACS

Resource ID: SCR_014565

Alternate IDs: biotools:gromacs, OMICS_05081

Alternate URLs: <https://bio.tools/gromacs>, <https://sources.debian.org/src/gromacs/>, <https://github.com/gromacs/gromacs>

License: GNU Lesser General Public License version 2.1

Record Creation Time: 20220129T080321+0000

Record Last Update: 20260806T054611+0000

Ratings and Alerts

No rating or validation information has been found for GROMACS.

No alerts have been found for GROMACS.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 8264 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#).

Parnandi VA, et al. (2026) A small *Candida glabrata* protein promotes hyphal growth in *C. albicans* during mixed-species invasive candidiasis. *Current biology* : CB, 36(1), 1.

Pinto CS, et al. (2026) Actin arginylation alters myosin engagement and F-actin patterning despite structural conservation. *The Journal of cell biology*, 225(1).

Kamran Z, et al. (2026) In silico design of a matrix (M) protein-based vaccine candidate against Newcastle disease virus. *Poultry science*, 105(1), 106101.

Lerche M, et al. (2026) Regulation of cell dynamics by rapid integrin transport through the biosynthetic pathway. *The Journal of cell biology*, 225(2).

Cheng W, et al. (2026) Multifunctional macrophage mimetic nanoplatform modulates vascular and epithelial double gut barriers to alleviate ulcerative colitis. *Theranostics*, 16(1), 58.

Li X, et al. (2026) Dynamic adaptive coassembled sericin protein orchestrating stem cell development for nucleus pulposus regeneration. *Science advances*, 12(1), eadx2768.

Rui M, et al. (2026) Tumor microenvironment-responsive conformational activation of apoA-I mimetic peptides for targeted cancer therapy. *Drug delivery*, 33(1), 2604086.

Zhou P, et al. (2026) Exploring the role of cytochrome P450 family 1 subfamily B member 1 and quercetin in modulating neuropathic pain after spinal cord injury. *Molecular medicine reports*, 33(1).

de Araujo Neto MF, et al. (2026) Development of a Novel *Aedes aegypti* Repellent: An Integrated Approach Combining In Silico and Bioassays. *Chemistry & biodiversity*, 23(1), e01251.

Ali-Ahmad A, et al. (2026) Structure and dynamics of 2x(CENP-A/H4)₂ octasome reveal a possible intermediate in centromeric chromatin. *Life science alliance*, 9(3).

Zhang P, et al. (2026) Resurrection and characterization of ancestral xylose transporters enhance the capability of xylose uptake in the mixed sugar co-fermentation of Recombinant *Saccharomyces cerevisiae*. *Bioresources and bioprocessing*, 13(1), 1.

Lund VK, et al. (2026) A Syd and RUFY dynein adaptor complex mediates axonal circulation of dense core vesicles. *The Journal of cell biology*, 225(3).

Gao X, et al. (2026) Salvianolic acid A from *Salvia miltiorrhiza* identified as a cap-dependent endonuclease inhibitor for pathogenic arenaviruses. *Acta pharmacologica Sinica*, 47(1), 173.

Cheng M, et al. (2026) Targeting p38 MAPK signaling pathway: Quercetin as a novel therapy for TMJ synovitis. *International journal of molecular medicine*, 57(1).

Nishimuta H, et al. (2026) Molecular mechanistic insights into the OX40-OX40L complex from biophysical and computational analyses. *Protein science : a publication of the Protein Society*, 35(1), e70404.

Bermudes-Contreras JD, et al. (2026) Molecular dynamics simulation of thermal activation of human TRPV1. *Molecular biology research communications*, 15(1), 39.

Li Y, et al. (2026) Calpain-1 Potentiates Periodontal Regeneration via PHLPP1-ERK-Driven Osteogenesis in Periodontal Ligament Stem Cells. *International dental journal*, 76(1), 109309.

Wei X, et al. (2026) Decoding Hydrogen-Bond Network of Electrolyte for Cryogenic Durable Aqueous Zinc-Ion Batteries. *Nano-micro letters*, 18(1), 127.

Li Z, et al. (2025) Phased high-quality genome of the gymnosperm Himalayan Yew assists in paclitaxel pathway exploration. *GigaScience*, 14.

Borar P, et al. (2025) Dual-specific autophosphorylation of kinase IKK2 enables phosphorylation of substrate I β B β through a phosphoenzyme intermediate. *eLife*, 13.