

Temperature

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gas is a measure related to the average kinetic energy of its atoms as they move. In this animation, the size of helium atoms relative to their spacing is shown to scale under 1950 atmospheres of pressure. These room-temperature atoms have a certain, average speed. Temperature is a physical property of a system that underlies the common notions of hot and cold; something that is hotter generally has the greater temperature. Temperature is one of the principal parameters of thermodynamics. On the microscopic scale, temperature is defined as simply the average energy of microscopic motions of a single particle in the system per degree of freedom. On the bulk scale, common to non-scientists, temperature is defined as that unique physical property that is shared between two otherwise entirely unlike things that happen to be in thermal equilibrium with each other. For a solid, these microscopic motions are principally the vibrations of the constituent atoms about their sites in the solid. For an ideal monatomic gas, the microscopic motions are the translational motions of the constituent gas particles. For multiatomic gas vibrational and rotational motion should be included too. Temperature is measured with thermometers that may be calibrated to a variety of temperature scales. In most of the world, the Celsius scale is used for most temperature measuring purposes. The entire scientific world measures temperature using the Celsius scale and thermodynamic temperature using the kelvin scale, which is just the Celsius scale shifted downwards so that $0\text{ K} = -273.15\text{ }^{\circ}\text{C}$, or absolute zero. Many engineering fields in the U.S., especially high-tech ones, also use the kelvin and Celsius scales. The bulk of the U.S. however, relies upon the Fahrenheit scale. Other engineering fields in the U.S. also rely upon the Rankine scale when working in thermodynamic-related disciplines such as combustion.

Recent Publications on Temperature:



- [Cobalt nanoparticles as a novel magnetic resonance contrast agent-relaxivities at 1.5 and 3 Tesla.](#)
*Two samples of polymer-coated cobalt nanoparticles were synthesized and...*30th August, 2008
Magnetic Resonance and Image Analysis Research Centre (MARIARC),- Contrast Media Mol Imaging. 2008 Aug 29. ([DOI Direct Link](#))
- [Synthesis, Crystal Structure, Bonding, and Properties of \(Ba\(6\)O\)\(OsN\(3\)\)\(2\).](#)
*The new barium nitridoosmate oxide (Ba(6)O)(OsN(3))(2) was prepared by...*30th August, 2008
Max Planck Institute for Solid State Research, Heisenbergstrasse 1, 70569- Chem Asian J. 2008 Aug 29. ([DOI Direct Link](#))
- [Donor-Acceptor Systems: Energy Transfer from CdS Quantum Dots/Rods to Nile Red Dye.](#)
*We demonstrate strong evidence of shape-dependent efficient resonance...*30th August, 2008
Department of Materials Science and Centre for Advanced Materials, Indian- Chemphyschem. 2008 Aug 29. ([DOI Direct Link](#))
- [Cold-induced exodus of postsynaptic proteins from dendritic spines.](#)
*Dendritic spines are small protrusions on neuronal dendrites and the major...*30th August, 2008
Institute of Molecular Medicine, National Tsing Hua University, Hsinchu,- J Neurosci Res. 2008 Aug 28.

- ([DOI Direct Link](#))
- [Physicochemical, Morphological and Therapeutic Evaluation of Agarose Hydrogel Particles as a Reservoir for Basic Fibroblast Growth Factor.](#)
*Micron-sized agarose hydrogel particles were prepared using an...*30th August, 2008
 Graduate School of Pharmaceutical Sciences, Chiba University, Chiba,- Pharm Dev Technol. 2008 Aug 28:1-7. ([DOI Direct Link](#))
 - [Preformulation Studies of a Prodrug of Delta\(9\)-Tetrahydrocannabinol.](#)
*Preformulation studies were performed on a hemiglutarate ester prodrug of...*30th August, 2008
 Department of Pharmaceutics, School of Pharmacy, The University of- AAPS PharmSciTech. 2008 Aug 28. ([DOI Direct Link](#))
 - [A Cold-Adapted Epoxide Hydrolase from a Strict Marine Bacterium, Sphingophyxis alaskensis.](#)
*An open reading frame (ORF) encoding a putative epoxide hydrolase (EHase)...*30th August, 2008
 Marine Biotechnology Research Centre, Korea Ocean Research and Development- J Microbiol Biotechnol. 2008 Aug;18(8):1445-52.
 - [Development of Grid-like Applications for Public Health using Web 2.0 Mashup Techniques.](#)
*Development of public health informatics applications often requires the...*30th August, 2008
 Yale Center for Medical Informatics, Yale University, New Haven, CT.- J Am Med Inform Assoc. 2008 Aug 28. ([DOI Direct Link](#))
 - [Limits for combustion in low O2 redefine paleoatmospheric predictions for the Mesozoic.](#)
*Several studies have attempted to determine the lower limit of atmospheric...*30th August, 2008
 School of Biology and Environmental Science, University College Dublin- Science. 2008 Aug 29;321(5893):1197-200. ([DOI Direct Link](#))
 - [Moving with the beat: heart rate and visceral temperature of free-swimming and feeding bluefin tuna.](#)
*Owing to the inherent difficulties of studying bluefin tuna, nothing is...*30th August, 2008
 School of Earth and Environmental Sciences and Aquafin CRC, University of- Proc Biol Sci. 2008 Aug 26. ([DOI Direct Link](#))
 - [Local adaptation in brown trout early life-history traits: implications for climate change adaptability.](#)
*Knowledge of local adaptation and adaptive potential of natural...*30th August, 2008
 National Institute of Aquatic Resources, Technical University of Denmark,- Proc Biol Sci. 2008 Aug 26. ([DOI Direct Link](#))
 - [Temperature-dependent sex-biased embryo mortality in a bird.](#)
*Sex ratios have important evolutionary consequences and are often biased...*30th August, 2008
 School of Integrative Biology, The University of Queensland, Brisbane,- Proc Biol Sci. 2008 Aug 26. ([DOI Direct Link](#))
 - [Liquid chromatography-tandem mass spectrometry method for routine measurement of oxalic acid in human plasma.](#)
*A solid phase extraction (SPE)-LC-MSMS method for the routine...*30th August, 2008
 Department of Medical Biochemistry, Rikshospitalet Medical Centre, 0027- J Chromatogr B Analyt Technol Biomed Life Sci. 2008 Jul 9. ([DOI Direct Link](#))
 - [Aggregation mechanism investigation of the GIFQINS cross-beta amyloid fibril.](#)
*Amyloid-like fibrils are found in many fatal diseases, such as Alzheimer's...*30th August, 2008
 College of Life Sciences and Biotechnology, Shanghai Jiaotong University,- Comput Biol Chem. 2008 Jul 25. ([DOI Direct Link](#))
 - [Radioiodination of protein using 2,3,5,6-tetrafluorophenyl 3-\(nido-carboranyl\) propionate \(TCP\) as a potential bi-functional linker: Synthesis and biodistribution in mice.](#)
*2,3,5,6-Tetrafluorophenyl 3-(nido-carboranyl) propionate (TCP), as a new...*30th August, 2008
 Key Laboratory of Radiation Physics and Technology, Ministry of Education,- Appl Radiat Isot. 2008 Jul 24. ([DOI Direct Link](#))

BioNews Results for Temperature

- [Alsius wins FDA approval for Solex catheter](#)
Pharmaceutical Business Review: Aug 28 2008 5:00AM Matching: temperature
- [Alsius wins FDA approval for Solex catheter](#)
Datamonitor: Aug 28 2008 3:06AM Matching: temperature
- [Vladimir V. Dmitriev awarded prestigious prize in low temperature physics](#)
Chemie.de: Aug 27 2008 3:45AM Matching: temperature
- [Innovation in Animal Telemetry Monitoring: Single Transmitter Measures SNA, BP and Temperature](#)
NewsBlaze: Aug 27 2008 5:39PM Matching: temperature
- [Save \\$4,078 to \\$16,312+ per year with LabGuard2 Automated Temperature Monitoring](#)
American Pharmaceutical Review: Aug 23 2008 9:47AM Matching: temperature
- [Rx Product News: Profile: A Closer Look at New FDA Actions: NovoSeven RT](#)
Pharmacy Times: Aug 22 2008 4:26AM Matching: temperature
- [Temperature controlled solute delivery system](#)
PharmCast: Aug 22 2008 4:00AM Matching: temperature
- [Proof of Design: Easing the Transport of Temperature-Sensitive Products](#)
Medical Device Link: Aug 17 2008 10:07PM Matching: temperature
- [PEAK Surgical Uses SolidWorks Software To Develop Low-Temperature Surgical Cutting And Coagulation Tools](#)
Medical Design Online: Aug 12 2008 6:54AM Matching: temperature
- [More Than Temperature Puts Elderly at Risk in Heat](#)
KLFY: Aug 10 2008 3:39PM Matching: temperature
- [DRS Technologies Reports Record First Quarter Results](#)
Genetic Engineering News: Aug 8 2008 11:53AM Matching: temperature
- [Alsius Corporation Reports Record Second Quarter 2008 Financial Results and Business Progress](#)
TickerTech.com: Aug 7 2008 11:44PM Matching: temperature
- [Alsius Corporation Reports Record Second Quarter 2008 Financial Results and Business Progress](#)
KLFY: Aug 7 2008 11:39PM Matching: temperature
- [Thermo Scientific Revco PLUS -86 Ultra-Low Temperature Freezers](#)
Bioresearch Online: Aug 7 2008 6:51AM Matching: temperature
- [Thermo Scientific CryoMed Controlled-Rate Freezers](#)
Bioresearch Online: Aug 7 2008 5:40AM Matching: temperature

Temperature Clinical Trials:



- [Temperature Measurement in Post-Anesthesia Care Units](#)
Surgery; Postoperative; Laparoscopic Surgery; General Anesthesia

Temperature Patents:



- 7418690- [Local searching techniques for technology mapping](#)
- 7418432- [Adaptive control system having direct output feedback and related apparatuses and methods](#)
- 7418428- [System and method for controlling delivering of a commodity](#)
- 7418399- [Methods and kits for managing diagnosis and therapeutics of bacterial infections](#)
- 7418392- [System and method for controlling the operation of a device by voice commands](#)
- 7418390- [Multi-language system for online communications](#)
- 7418375- [Load current evaluation device, load current evaluation method, and recording medium containing load current evaluation program](#)
- 7418371- [Method and system for graphical hairstyle generation using statistical wisp model and pseudophysical approaches](#)
- 7418364- [Dynamic attitude measurement method and apparatus](#)
- 7418362- [Method and device for determining wheel force](#)
- 7418356- [System and method of battery capacity estimation](#)
- 7418354- [System and method for leak detection based upon analysis of flow vectors](#)
- 7418352- [Method of using data binning in the analysis of chromatography/spectrometry data](#)
- 7418351- [Methods for analysis of measurement errors in measured signals](#)
- 7418452- [System and method for locating, categorizing, storing, and retrieving information](#)
- 7418481- [Arrangement for distributed control system](#)
- 7418679- [Method of enabling timing verification of a circuit design](#)
- 7418669- [Method for controlling a window-based user interface and an HMI device for carrying out said method](#)
- 7418617- [Apparatus for adjusting timing of memory signals](#)
- 7418613- [Power supply control method, power supply control unit and information processing apparatus](#)
- 7418611- [Thermal and power management for computer systems](#)
- 7418604- [System and method for powering on after verifying proper operation of a charge pump and voltage regulator](#)
- 7418598- [Architecture of an encryption circuit implementing various types of encryption algorithms simultaneously without a loss of performance](#)
- 7418587- [Compound computer machine and management method of compound computer machine](#)
- 7418584- [Executing system management mode code as virtual machine guest](#)
- 7418561- [Adaptive throttling of memory accesses, such as throttling RDRAM accesses in a real-time system](#)
- 7418541- [Method for indirect access to a support interface for memory-mapped resources to reduce system connectivity from out-of-band support processor](#)
- 7418529- [Method and apparatus for communicating with an embedded controller which includes a reference to metadata objects within a computing device](#)
- 7418525- [Shared simultaneously-connected removable drives and servers each housing an I/O controller which maintains an uninterrupted protocol connection](#)
- 7418347- [Method of determining the risk of ice deposition due to precipitation and apparatus for exercising the method](#)

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Send comments and feedback to:
Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

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