

# INFRARED PHYSICS & TECHNOLOGY

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The Editors of Infrared Physics and Technology invite scientists at WIRMS 2007 to submit their new research for publication in a special issue devoted to the conference. Submission instructions can be found on the web site at <http://www.sciencedirect.com/science/journal/13504495> or you may contact George Neil at [neil@jlab.org](mailto:neil@jlab.org). On the web site you can also find the special issue of IR Physics and Technology devoted to WIRMS 2005. Submission deadline for this issue will be the first day of the conference. We prefer to have the papers in electronic format but they do not have to be camera ready. All papers will be refereed to the standards of original scientific work.

The Journal covers the entire field of infrared physics and technology: theory, experiment, devices and instrumentation.

Its core topics can be summarized as the generation, propagation and detection, of infrared radiation; the associated optics, materials and devices; and its use in all fields of science, industry and medicine.

Infrared techniques occur in many different fields, notably spectroscopy and interferometry; material characterization and processing; atmospheric physics, astronomy and space research. Scientific aspects include quantum optics, quantum electronics and semiconductor physics. Some important applications are medical diagnostics and treatment, industrial inspection and environmental monitoring.

A fuller though not exhaustive list of topics would include:

- a.. Astronomy, Astrophysics and Space Research
- b.. Atmospheric transmission, turbulence and scattering.
- c.. Environmental applications: pollution and monitoring.
- d.. Detectors: quantum and thermal
- e.. Industrial applications
- f.. Infrared lasers including free electron lasers

- g.. Material properties, processing and characterization.
- h.. Medical applications
- i.. Nondestructive testing, active and passive.
- j.. Optical elements: lenses, polarizers, filters, mirrors, fibres, etc.
- k.. Radiometry: techniques, calibration, standards and instrumentation.
- l.. Remote sensing and range-finding
- m.. Solid-state physics
- n.. Thermal imaging: device design, testing and applications
- o.. Synchrotron radiation in the infrared