DESCRIPTION

The Journal covers the entire field of infrared physics and technology: theory, experiment, application, devices and instrumentation. Infrared is defined as covering the near, mid and far infrared (terahertz) regions from 0.75μm (750nm) to 1mm (300GHz.) Submissions in the 300GHz to 100GHz region may be accepted at the editors discretion if their content is relevant to shorter wavelengths. Submissions must be primarily concerned with and directly relevant to this spectral region.

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, engineering 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 lasers, quantum optics, quantum electronics, image processing 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:

- Astronomy, Astrophysics and Space Research
- Atmospheric transmission, turbulence and scattering
- Biomedical and Medical applications
- Cultural heritage
- Environmental applications: pollution and monitoring
- Detectors: quantum and thermal
- Image processing
- Industrial applications
- Infrared lasers including free electron lasers
- Material properties, processing and characterization.
- Nondestructive testing, active and passive.
- Optical elements: lenses, polarizers, filters, mirrors, fibres, etc.
- Radiometry: techniques, calibration, standards and instrumentation.
- Remote sensing and range-finding
- Solid-state physics
- Synchrotron radiation in the infrared

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**AUDIENCE**

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