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Coming Soon!

Inspec Archive - Science Abstracts 1898-1968

As library space becomes a premium, copies of early abstracts journals are becoming scarce. To overcome this, Inspec is digitising its entire collection of Science abstracts between 1898 and 1968.

We are producing an XML archival backfile to the Inspec Database. This will contain approximately 800,000 records, along with the original indexing and some modern enhancements and therefore will be far more usable than it ever was in print!

A typical early record is shown below:

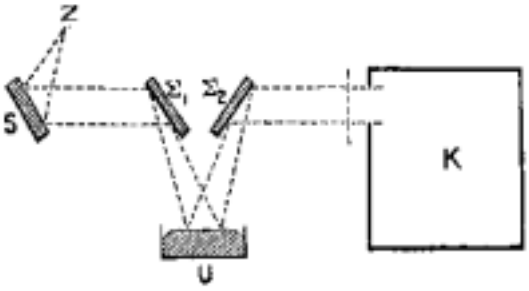
1898A00762
1898, Vol.1 (July), Abstract No. 00762, Record type: Journal article

Heat-rays of great wave-length, Rubens, H and Aschkinass, E
Annal. Phys. Chem., Vol. 64 No. 3. Pages: 602-605 1898

It having been found that water-vapour absorbs the infra-red rays transmitted by fluorspar, it is of interest to enquire whether liquid water does the same. On account of absorption by almost all known substances, the rays must be transmitted through water not contained in a vessel with parallel sides. The arrangement adopted is shown in the diagram. Light from a zirconium burner Z is reflected by a concave mirror S and a plane mirror Sigma$_1$ on to a mercury-surface U, and then by further reflections into a box K containing the usual fluorspar reflecting surfaces and the thermo-couple. After a first reading, a thin sheet of water is laid over the mercury. The absorption is very considerable. The refractive index is of the same order as for the visible spectrum, and the value 9 is probably not reached until wavelength = 24 microns. The comparative intensities of reflected rays obtained with other liquids are: ethyl alcohol 5, carbon bisulphide 23, benzol 49, phenol 5, xylol 9, with a layer 5 mm. thick. It appears that benzol is very transparent for these rays (wavelength = 0.5 to 1.8 microns.), even more so than chloride of silver. The substitution of a hydroxyl group for a hydrogen atom (phenol) considerably increases the absorption, just as it does in other substances

Subject Indexing:
Radiation, waves oscillations [heat-rays of great wave-length]

Classification
Light



Inspec Archive – Science Abstracts 1898 – 1968 will be available for direct purchase (XML data only) in Spring 2004. Many Vendor systems will also load the file during the course of 2004.

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