

Indian Scientist

Dr. Motilal Madan



(Born on 1 January 1939)

Light surrounds us every day—in mobile screens, medical scanners, internet cables, and scientific instruments. Understanding how light interacts with matter is essential to modern science, and one Indian scientist who made this possible was **Dr. Motilal Madan**, a physicist whose work quietly strengthened India's foundations in advanced physics.

Dr. Madan worked in the field of **molecular spectroscopy and laser physics**—areas that help scientists study the structure and behavior of molecules using light. While this may sound abstract, its impact is very real. These techniques are used today in medical diagnostics, environmental monitoring, chemical analysis, and even space research.

Because of scientists like Dr. Madan, we can detect pollutants in the air, analyze materials at the atomic level, and improve technologies that rely on precision measurements.

One of Dr. Madan's most lasting contributions was building **scientific capacity in India**. At a time when advanced experimental physics was still developing in the country,

He helped establish strong research and teaching systems, especially at the Indian Institute of Technology (IIT) Kanpur. His work ensured that students in India could learn and experiment with world-class scientific tools without having to go abroad.

Dr. Madan was deeply committed to education. He believed that curiosity—driven research and strong fundamentals were essential for innovation.

For students, Dr. Motilal Madan's life offers an inspiring message: science does not always change the world overnight. Sometimes, it builds the **knowledge base** that future discoveries stand on. By patiently studying light and matter, and by nurturing young minds, he helped India prepare for a future driven by science and technology—one equation, one experiment, and one student at a time.

Riddles 2510

1. What gets wetter as it dries?
2. I have no life, but I can die. What am I?
3. What is full of holes but still holds water?

4. What kind of table has no legs?
5. This electronic device has buttons on it that aren't meant to open doors.?

(Answers on Back Cover Inside)