

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:2116
ANSWERED ON:18.12.2013
TECHNOLOGY FOR EXTRACTION OF TITANIUM
Karunakaran Shri P.

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether the technology for extraction of Titanium from Rare Earth has been developed in the country;
- (b) if so, the details thereof;
- (c) the details of facilities available in the country for extraction of the metal from Titanium dioxide along with the details of the capacity of production/revenue from production; and
- (d) the details of the initiatives taken to develop requisite technology in this regard in the country?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY) :

(a)&(b) Yes sir, Titanium metal is produced from Titanium bearing minerals.

(c)&(d) Titanium metal is produced from Ilmenite which contains about 50 - 60% Titanium di-oxide (TiO₂). This is required to be upgraded to Synthetic rutile which contains about 90% TiO₂. Defence Metallurgical Research Laboratory (DMRL), Hyderabad has a pilot plant of 4 ton per annum (tpa) capacity to produce titanium sponge. Department of Space in collaboration with M/s Kerala Minerals & Metals Ltd. (KMML) has set up a 500 tpa titanium sponge plant at KMML's facility in Chavara, Kerala. The facility available at Mishra Dhatu Nigam Ltd., (MIDHANI) has the potential to produce 300 tpa metal forms.