




**संपादकीय**

राकेश शंकर गोरे



## हायटेक युगाला उपयुक्त 'निओडायमियम'

नवा आणि डिडमर्स म्हणजे जुळा. म्हणून त्यांनी नव्याने शोध लागलेल्या मूलद्रव्याला 'निओडायमियम' नाव ठेवले. निओडायमियम चक्काकाणास धातु आहे.

मूलद्रव्याच्या आवत सारांगमध्ये प्रॅसिंसओडायमियम आणि निओडायमियम यांना दुर्मिळ मूलद्रव्यांच्या (रेतार अर्थात्त्या) रेतार जागा मिळाला. त्यापैकी अणुक्रमांक ५७ ते ७१ या रेतारील सर्वच मूलद्रव्यांव्ये दुर्मिळ नाहीत, पण दुर्लभ आहेत. याचा कारण त्याचे रासायनिक आणि भौतिक गुणधर्म एकमेकांशी इतके जुळवात, की त्यांना शुद्ध करणे अवघड आणि वेळध्यांक असते.

ते धातु आणि त्यांचे क्षार हे वेगवेगळ्या विद्वावकात कमी-अधिक विरवल्यात म्हणून शुद्धीकरण जमू शकते. निओडायमियमचा उपयोग कावा जांबळत, लालसर रोगांच्या करण्यासाठी केला जागेवा. वेल्डिंग करताना सरक्षक गोलांच्या काचांमध्ये निओडायमियम वापरले जाते.

या विशिष्ट काचा खेळाला तांत्रिक वापरतात, त्या एप्टिकॉर्टोमेटरमध्ये दुर्मिळ खेळाला तांत्रिक वापरतात, त्या एप्टिकॉर्टोमेटरमध्ये खाली रोगांनी पुढील काळात आवश्यक असणाऱ्या कच्चा मालाची गावी केली असून त्यात 'निओडायमियम' चा उल्लेख आहे.

उच्चदजार्ची यंत्रासमग्री त्याचर करण्यासाठी कच्चामाल देंदरार असायल पाहिजे. भारतीय संशोधकांनी पुढील काळात आवश्यक असणाऱ्या कच्चा मालाची गावी केली असून त्यात 'निओडायमियम' चा उल्लेख आहे.

आर्टिक्यूलेटीव काली ऊर्फ फॉन वेशाबाबू १८८५ साली प्रॅसिंसओडायमियम हे मूलद्रव्य खनिजापासून विलग करताना त्याची 'संगती' ते एक वेगवेगळा मूलद्रव्य त्यात आढळले. ते प्रॅसिंसओडायमियमचा एक ज़ुळ्या भाऊ असून्यासारखे त्यांना वाटले. शीरकभाषेत निझा म्हणजे

प्रॅसिंसओडायमियमचे शक्तिशाली चुंबक वापरताना अपघात

होऊ शकतात. दोन चुंबकांमध्ये योग्य अंतर नसेल ते अत्यंत जोरात एकमेकांवर आपटून अपघात होतो. या चुंबकांच्या जवळ आर्डिंग्झा/व्हिडीओ कॅसेट, क्रिंडिट कार्ड किंवा हातातील मेकानिकल घडयाळ नेल्यास ते सहजपणे विघडते. ज्यांच्या हदवात मेसमेकर बसवला आहे त्यांनी या चुंबकाच्या जवळव्यास जाऊ नये. माहिती तंत्रज्ञानाच्या हार्डिंग्झमध्ये निओडायमियमचे चुंबक वापरल्यास संगणकातील किंवा जगतीत मोठ्या प्रमाणात मेस्पी/ (डेटा) साठवला वेतो. दूसरिव्यापार्ण्याच्या उत्करणामध्ये, सॉफ्टवेर अरमध्ये, छोट्या-मोठ्या घटनिसेपक आणि आॅन-ऑफ विचमध्ये विशिष्ट ताकीदीचे चुंबक लागतात. वैद्यकशास्त्रात रोगनिदान आणि रोगनिवारण करणाऱ्या उपकरणांमध्ये निओडायमियमचे चुंबक वापरतात.

दंतवेशाच्या उग्करणात आणि मैनिटोके रेजेन्स इम्झीर्जिंग (एमआरएच)च्या उपकरणात निओडायमियमचे चुंबकच लागतात. यामुळे शेरीराच्या आतील इंट्रियांचे चिक्रीकरण रेत्यावर आणि अनुकूल मिळते. अनेक ग्रकराच्या ज्वेलरीमध्ये निओडायमियमचे चुंबक वापरता येतो.

**शक्तिशाली चुंबक**  
आयुर्विक जगामध्ये सौरकर्जा, दल्घणवलण, संपर्क साधने, अंतराळ विज्ञान, वैद्यकशास्त्र, लष्करी सामग्री, माहिती तंत्रज्ञान आणि विषयांचे महत्त्व वाढलेले. त्यासाठीच्या युगांतीच्या वंशांमध्ये छोट्या पण शक्तिशाली चुंबकाचे महत्त्व अनन्यसाधारण आहे. निओडायमियम, लोह आणि वोरांन यांच्या मिश्रणातून नेहमीच्या चुंबकप्रक्षेप कीसा पट यांनी आणि टिकांग चुंबक वापरतात.

**उदारणार्थ इल (इयर रिंग)** घारण्यासाठी कानांच्या पालीला छिड पाडावू लागते. पण ज्यांच्या कानांच्या पावळीला छिड नाही अशा महिला निओडायमियमचे छोटे शक्तिशाली चुंबक वापरून इलचाचा वापर करू शकतात! त्यांना फिकीची गरज नाही!

बैरीवर प्रक्षेपाच्या अल्याधुनिक मोटार-कार मध्ये सुमोरे एक किलोग्रॅम निओडायमियमचा उपयोग केलेला असतो. त्याचे चुंबक १५० ते २०० अंश सेलिसिस तापमानाता कार्यकारीपणे काम करतात. बैरीवरील मोटारीवर प्रापराच्या हाथातून लालचाचा असल्याने योग्य ठरात. कारण त्याची घनता प्रति कांसेटमीटर ७५० ग्रॅम आहे. हे चुंबक मायक्रोवेल्ह ओडन, स्पार्टफेन, संपर्क आदी उपकरणांमध्ये वापरतात.

**SUPERFOOD TOMATO : KNOW THESE 5 BENEFITS OF TAMATAR**



Tomatoes play a crucial role in cardiovascular health. The trifecta of lycopene, potassium, and vitamin C aids in regulating blood pressure, enhancing arterial function, and curbing cholesterol levels. Integrating tomatoes into your diet can be a flavorful strategy for a healthy heart.

**Skin's best friend:** The dynamic duo of vitamins A and C found in tomatoes works wonders for your skin. These vitamins, coupled with lycopene, stimulate collagen production, improving skin elasticity and texture. Embrace tomatoes as a natural skincare ally, protecting your skin from environmental damage and promoting a vibrant complexion.

**Weight-loss warrior:** Tomato's low-calorie count and high water content make it a dieter's dream! It fills you up without weighing you down, making it a perfect snack or addition to any meal. Additionally, the fibre content keeps you feeling full for longer, curbing cravings and preventing unhealthy snacking.

tomatoes into your diet may contribute to a proactive defense against specific types of cancer.

**Potent antioxidant arsenal:** Tomatoes, or tamatar, boast an abundance of lycopene, a robust antioxidant renowned for its ability to combat oxidative stress. By neutralising free radicals, lycopene contributes to cellular health, reducing the risk of chronic diseases and promoting longevity.

**Heart's trusted ally:** Beyond their tempting

flavour, tomatoes play a crucial role in cardiovascular health. The trifecta of lycopene, potassium, and vitamin C aids in regulating blood pressure, enhancing arterial function, and curbing cholesterol levels. Integrating tomatoes into your diet can be a flavorful strategy for a healthy heart.

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