

# HAFNIUM (HF)

The fastest jets are often exposed to the highest heat loads, which is why many manufacturers rely on a special material: hafnium alloys. With a melting point of 3958 degrees Celsius, it is the frontrunner among our technology metals. However, hafnium is also used in medicine: when introduced into cancer cells, it makes them more susceptible to radiation.

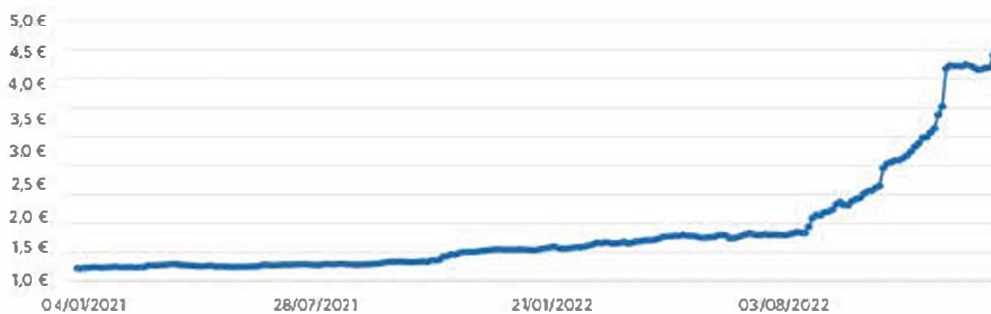
Hafnium is extracted from zirconium ore. However, production has been stagnating for some time and has even been declining slightly since 2018. The resulting decrease in inventories will lead to a higher demand for hafnium in the future.

## GROWTH MARKETS

- Super alloys
- Plasma cutting tips
- Hafnium oxide for optical applications
- Chemical Vapor Deposition
- Nuclear Engineering
  
- Catalysts
- Electronics
- Catalytic Converters
- Application in cancer Therapy

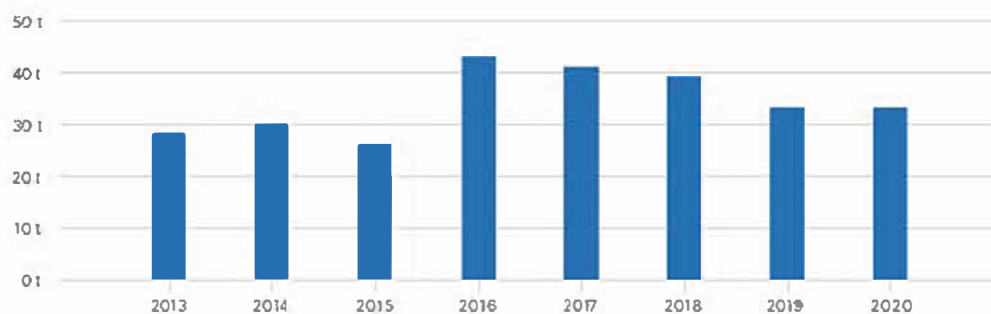
## Price Development and Production Quantities

Price Development  
in €/g



Hafnium price is up 288.7 percent from 01/01/2021 to 01/31/2023.

Production quantity  
in tons



The production volume has not reached its highest level of 2016, even though the demand for hafnium is increasing.