

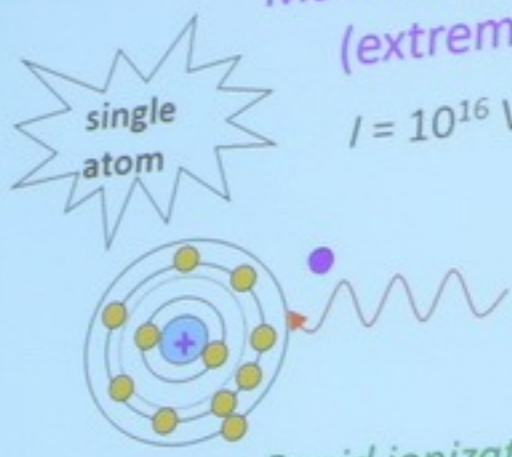
Prof. Dr. Norbert Kroó
 Humboldt Preisträger
 „Nanotechnologies in Energetics. Tendencies and Hopes“

Prof. Dr. Zoltán Tibor Pállinger
 Rektor der Andrassy Universität Budapest
 „Das Wesen ohne irgendeine besondere Gabe? – Welche Staatsbürgerinnen und – bürger brauchen die Demokratie heute?“

Matter under extreme conditions
 (extremely high intensities)

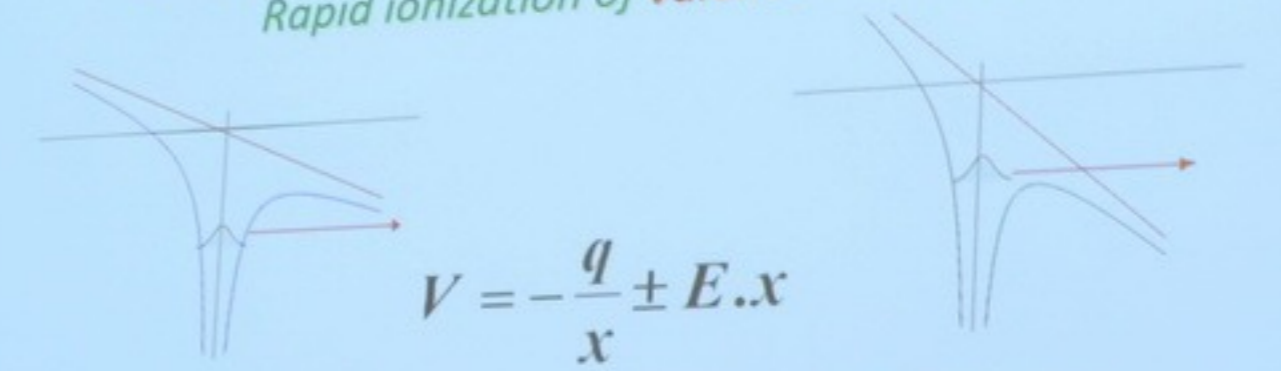
$I = 10^{16} \text{ W cm}^{-2}$ \longrightarrow $E \sim 10^9 \text{ V/cm}$

single atom



High intensity Photoelectric Effect

Rapid ionization of valence electrons



Tunnelling $V = -\frac{q}{x} \pm E \cdot x$ Over the barrier

$10^{14} - 10^{15} \text{ W cm}^{-2}$ $> 10^{15} \text{ W cm}^{-2}$

Each atom loses at least one electron. Some can lose as many as 6 !

