



Berliner Physikalisches Kolloquium

im Magnus-Haus, Am Kupfergraben 7, 10117 Berlin

Eine gemeinsame Veranstaltung der Physikalischen Gesellschaft zu Berlin e.V.,
der Freien Universität Berlin, der Humboldt-Universität zu Berlin,
der Technischen Universität Berlin und der Universität Potsdam
– gefördert durch die Wilhelm und Else Heraeus-Stiftung –

Am Donnerstag, dem **7. November 2019**, um **18:30 Uhr**

spricht

Prof. Dr. Yoshiaki Nakano

School of Engineering and Research Center for Advanced Science and Technology, The University of Tōkyō, Tōkyō, Japan

über das Thema

„Nitride semiconductor photo-electrodes for solar hydrogen production“

Moderation: Dieter Bimberg, Technische Universität Berlin

Photo-electro-chemical water splitting is a clean way of hydrogen production. Although III-nitride semiconductors have potentially favorable properties as water splitting photo-electrodes, they have several limitations for practical use. In this talk, the concept of a polarization-engineered nitride photocathode for water splitting is reviewed, along with fundamental characterization of nitride semiconductors as photo-electrodes. By incorporating multiple junctions, operation current densities up to 10 mA/cm² under 1 sun are expected.