



7. Materials Days Rostock 2011 Public Lecture

Magnetoreception mechanisms in birds - towards the discovery of the sixth sense

Dr. Ilia Solov`yov
Beckman Institute for Ad-
vanced Science and Techno-
logy University of Illinois at
Urbana-Champaign, USA

Many animals are able to sense the Earth's magnetic field and use it for their orientati-
on. Starting in the 1960s this magnetic sense was first described for higher organisms
and later also experimentally shown for bacteria. The best investigated magnetic sense
today is the compass of migrating birds. But even there, many details still elude the
investigation. Most likely, the animal magnetic sense is based on two types of recep-
tors, one containing tiny magnetic minerals, and the other one possessing reactive
free radicals. I will discuss both mechanisms and present results of recent theoretical
analysis aimed towards understanding the nature of the magnetoreception mechanism.



Friday October 7th, 15:30, Barocksaal, Universitätsplatz, Rostock
There is free admittance. The public is welcome.

supported by

