

CONDENSED MATTER COLLOQUIUM SERIES

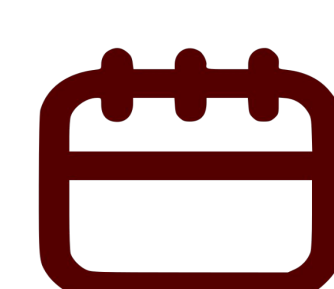
#Ankara

Furkan Öztürk

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Electron spin, molecular chirality, and prebiotic origins of homochirality

Electron spin couples strongly to molecular chirality through the recently discovered phenomenon of chiral-induced spin selectivity. As such, spin-polarized magnetic surfaces can function as robust chiral reagents and facilitate asymmetric processes. I will discuss recent experiments that exploit the strong coupling between electron spin and chirality, and explain their relation to life's homochirality—one of the grandest challenges in origin-of-life research since Pasteur's discovery of molecular chirality more than 175 years ago



*October, 27
Tuesday*



19:00, (Ankara Time)



Click [here](#) for zoom link

Meeting ID: 432 931 6595

Password: 326852

S. Furkan Ozturk is an Assistant Professor of Geochemistry and Geobiology and a William H. Hurt Scholar at the California Institute of Technology (Caltech), where he leads the Ozturk Lab in the Division of Geological and Planetary Sciences. He received his B.Sc. in Physics from Bilkent University in 2018 and his Ph.D. in Physics from Harvard University in 2024. After a brief postdoc as a Research Fellow at King's College, Cambridge, UK he joined Caltech in 2025. His group's research is on the origins of life, biomolecular homochirality, and the role of spin-dependent phenomena in biochemistry and geochemistry.

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