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Norman P. Neureiter and Tom C. Wang

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- 590 An Abnormal Normal State
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REVIEW

- 602 Sudden Death of Entanglement
T. Yu and J. H. Eberly

BREVIA

- 602 Facile Synthesis of AsP_3
B. M. Cossairt et al.
The question of the stability of solid AsP_3 , a simple inorganic molecule, has been settled by its synthesis.

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COVER

Desert locusts, *Schistocerca gregaria*, are normally solitary and avoid each other (green individual, lower right). Forced proximity between them leads to the release of the neurotransmitter serotonin, which changes their behavior to mutual attraction and initiates a cascade of events leading to swarm formation, including a change in appearance (black and yellow group). See page 627.

Image: Tom Faile, Swidbert Ott, and Stephen Rogers/University of Cambridge

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603 Anomalous Criticality in the Electrical Resistivity of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$

R. A. Cooper et al.

High magnetic fields can strip away the superconducting regime of a cuprate superconductor, revealing the presence of an enigmatic quantum critical point.

>> Perspective p. 590

REPORTS

607 Revealing the Maximum Strength in Nanotwinned Copper

L. Lu et al.

Studies of nanocrystalline copper reveal changes in deformation mechanisms with grain size and the role played by twin boundaries.

610 Control of Graphene's Properties by Reversible Hydrogenation: Evidence for Graphane

D. C. Elias et al.

Graphene can be transformed from a conductor to an insulator by exposure to hydrogen atoms and reversed by a thermal treatment.

>> Perspective p. 589

614 Dynamical Quorum Sensing and Synchronization in Large Populations of Chemical Oscillators

A. F. Taylor et al.

Communication between chemical oscillators in solution can mimic that of large populations of single-celled organisms.

617 Single Nanocrystals of Platinum Prepared by Partial Dissolution of Au-Pt Nanoalloys

M. Schinnerer et al.

Gold-platinum nanoparticles, held in polymer networks on latex beads, are converted into platinum nanocrystals.

620 Cascadia Tremor Located Near Plate Interface Constrained by S Minus P Wave Times

M. La Rocca et al.

A series of microearthquakes near Puget Sound originate near or on the subduction zone fault from a recurrent source.

623 Divergent Evolution of Duplicate Genes Leads to Genetic Incompatibilities Within *A. thaliana*

D. Bikard et al.

The divergent evolution of a duplicated gene results in genetic incompatibilities between strains of the plant *Arabidopsis*.

627 Serotonin Mediates Behavioral Gregarization Underlying Swarm Formation in Desert Locusts

M. L. Anstey et al.

Serotonin induces the phenotypic switch from solitary to gregarious behavior in desert locusts.

>> Perspective p. 594; Science Podcast

630 Survival from Hypoxia in *C. elegans* by Inactivation of Aminoacyl-tRNA Synthetases

L. L. Anderson et al.

Reduced activity of aminoacyl-transfer RNA synthetases allows for survival from hypoxic insult in the nematode *C. elegans*.

633 Ligand-Dependent Equilibrium Fluctuations of Single Calmodulin Molecules

J. P. Junker et al.

Single-molecule force spectroscopy reveals the equilibrium dynamics of calmodulin folding and how it is modulated by peptide ligands.

>> Perspective p. 593

638 Stretching Single Talin Rod Molecules Activates Vinculin Binding

A. del Rio et al.

Force-induced stretching of proteins can expose previous cryptic binding sites and promote binding to their ligands.

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642 Mechanically Activated Integrin Switch Controls $\alpha_5\beta_1$ Function

J. C. Friedland et al.

Myosin contraction and extracellular matrix stiffness drive a tension-induced cell-surface integrin switch that regulates cell signaling.

>> Perspective p. 588

644 A Human Telomerase Holoenzyme Protein Required for Cajal Body Localization and Telomere Synthesis

A. S. Venteicher et al.

Telomerase Cajal body protein 1 (TCAB1) is the fourth discovered subunit of the chromosome end-capping enzyme telomerase.

649 PAN1: A Receptor-Like Protein That Promotes Polarization of an Asymmetric Cell Division in Maize

H. N. Cartwright et al.

Asymmetric cell division in plants is regulated by a receptor-like kinase, implicating a signaling cascade in cell polarization.

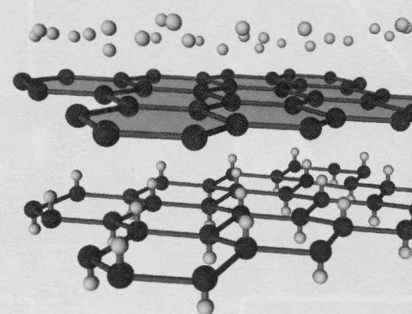
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651 Calcineurin/NFAT Signaling Is Required for Neuregulin-Regulated Schwann Cell Differentiation

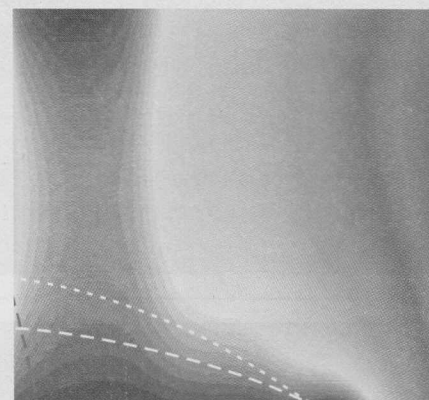
S.-C. Kao et al.

The cell signaling components calcineurin/NFATc and Sox10 control Schwann cell myelination.

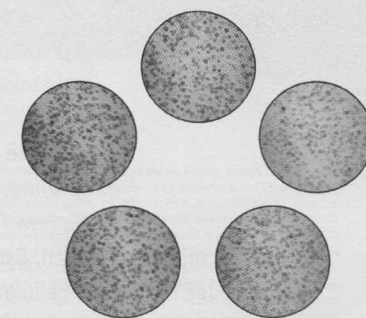
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