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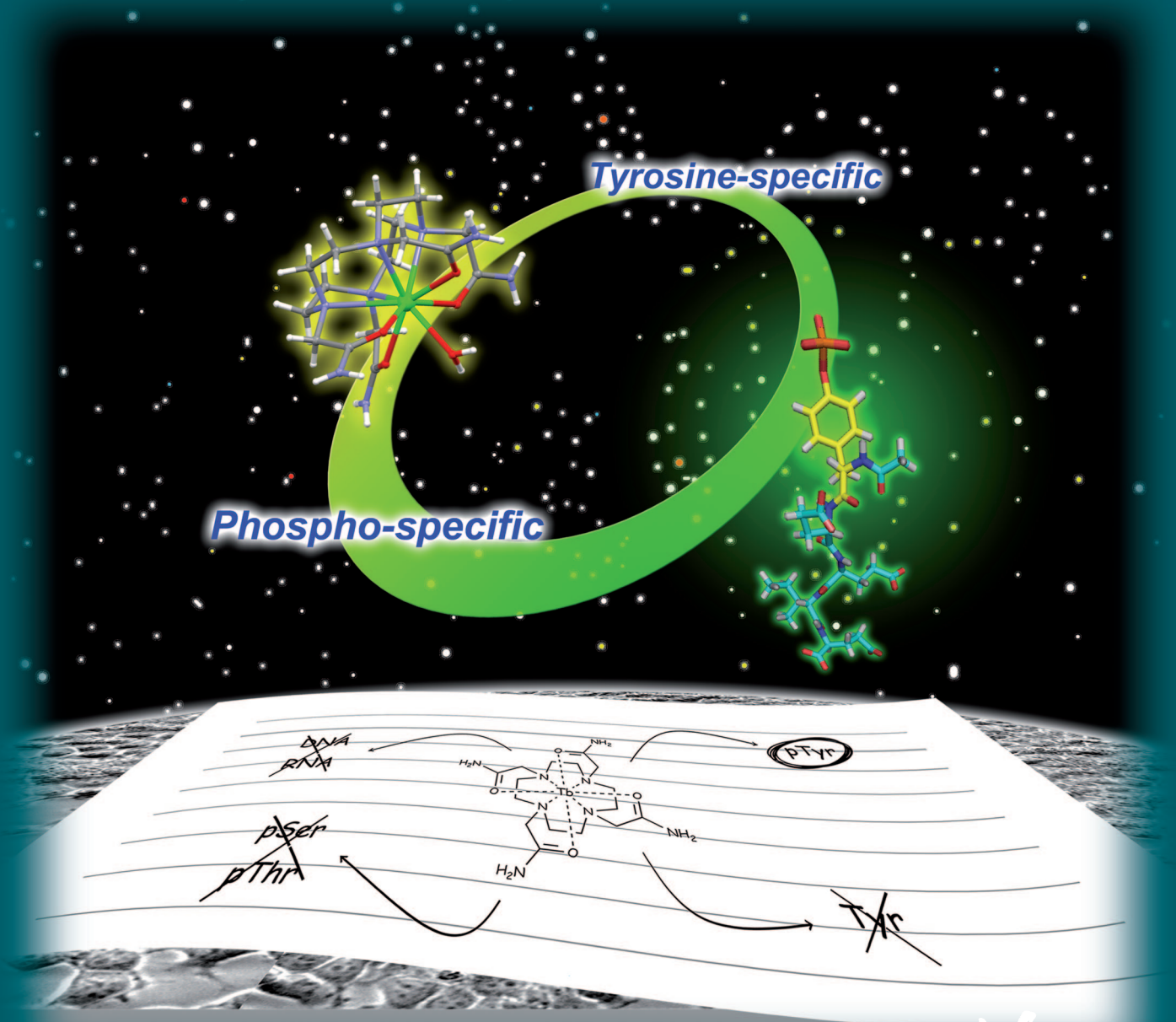

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Chemistry & Life Sciences

Minireview: Complex Oxidation Chemistry in the Biosynthetic Pathways to Vancomycin/Teicoplanin Antibiotics (S. D. Bruner)

Highlight: How Can Folded Biopolymers and Synthetic Foldamers Recognize Each Other? (I. Huc)

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Cover Picture

Hiroki Akiba, Jun Sumaoka*, and Makoto Komiyama*

The cover picture shows the selective detection of phosphotyrosine by using a terbium(III) complex. This strategy is a combination of Tyr-targeted energy transfer and phosphate-directed interaction, as indicated in the upper part of the picture. The phosphorylation of Tyr can easily be detected by its luminescence, which is dependent upon energy transfer from the Tyr residue to the Tb^{III} center. When Tyr is not phosphorylated, the interaction with the Tb^{III} complex is weak. The lower part of the picture shows the high selectivity among various biomolecules, such as nonphosphorylated Tyr, phosphorylated Ser or Thr, and nucleic acid species. In their communication on p. 1773 ff, J. Sumaoka, M. Komiyama, et al. discuss their detection of Tyr phosphorylation in nucleic acid-containing solutions.