

## FLUORINATED RETINOIDS: SYNTHESSES AND FORMATION OF ARTIFICIAL PIGMENTS

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Retinal analogs have generated much interest as probes for the investigation of the primary photoprocess of chromoproteins (bacteriorhodopsin and rhodopsin). We disclose the syntheses of fluorinated retinals (1, 2, 3) and the formation of artificial pigments (trifluorobacteriorhodopsin and trifluororhodopsin). These fluorinated retinals are considered useful probes for the investigation of the binding site of retinal-protein complex. Efficient syntheses of 1, 2 and 3 were achieved in all trans and 11 cis forms. In the final part of this presentation, the absorption spectra of the artificial pigments and the function of trifluorobacteriorhodopsin will be discussed.

