

Abstract Submitted
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Förester Resonance Energy Transfer Studies on a Tryptophan-less Green Fluorescent Protein¹ SEAN CHI, TRISTAN NARANJO, KIMBERLY DE LA HARPE, BARRY HICKS, LATISHA JEFFERIES, USAFA — Förester resonance energy transfer (FRET) between tryptophan amino acid residues and a neighboring chromophore has been well studied in green fluorescent proteins. This study investigates the FRET process in a modified green fluorescent protein, pWless, which lacks tryptophan residues, leading instead to FRET between tyrosine and the chromophore. This study compares the photophysical properties of the green fluorescent protein, ecGP123, and the tryptophan-less pWless, and investigates quenching of FRET by TNT derivatives. These findings have the potential to be useful in military, civilian, and private sectors for security and defense against explosive compounds.

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None

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