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Towards a single-molecule FRET study of Frauenfelder's nonexponential rebinding of CO in myoglobin

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Towards a single-molecule FRET study of Frauenfelder's nonexponential rebinding of CO in myoglobin

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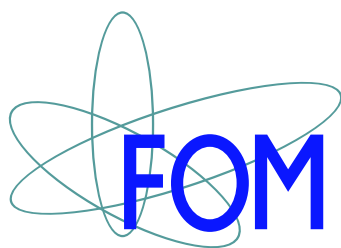
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Cover: designed and draw by Mrs. Zohre Eskandari Alughare. The front side of cover shows two states of fluorescent dye-labeled Myoglobin: the left 3D structure and the left cartoon show dye-labeled carboxymyoglobin (MbCO) and the right 3D structure and the right cartoon show dye-labeled dexoymyoglobin (Deoxy-Mb). They demonstrate that when CO bound to the myoglobin (MbCO), less FRET and less quenching effect occurs and the fluorescent dye shines, whereas in Deoxy-Mb, the attached dye is quenched due to the higher FRET. It is possible to follow this conversion in a microscope. At the bottom, the structure of heme in two states are shown. The back cover presents two fluorescent dyes (donor-acceptor) doped in a polymeric layer of PMMA to study FRET quenching at both single-molecule and ensemble levels.

To my husband: Payam

and

To our parents

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