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Title: Dual-Responsive Fluorescent Probe for Hypochlorite via pH-Modulated, Ring-Opening Reactions of a Coumarin-Fused Rhodol Derivative

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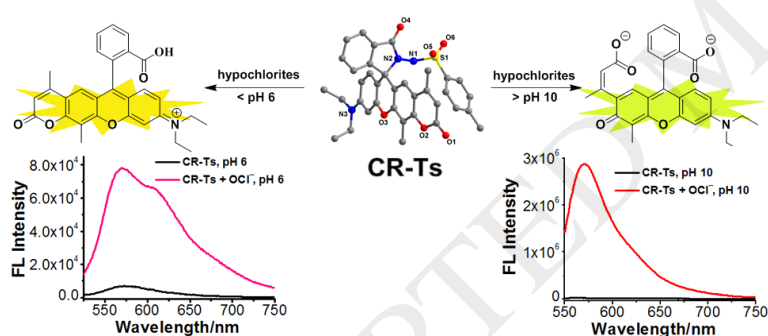
Dual-Responsive Fluorescent Probe for Hypochlorite via pH-Modulated, Ring-Opening Reactions of a Coumarin-Fused Rhodol Derivative

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Graphic Abstract



Research Highlights

- A new hybrid compound with the structural combination of coumarin and rhodol motifs
- In the presence of OCl^- , the product is in two-ring opened structure in alkaline condition, while only spiro-ring was opened in acidic condition
- Good sensitivity and selectivity for OCl^- over other reactive oxygen and transition metal ions
- The proposed method has also been applied to detect hypochlorite concentration in tap water and commercial disinfectants

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