



Efficient second harmonic generation from thin films of V-shaped benzo[b]thiophene based molecules

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Auteur	Favaretto, L. [1], Barbarella, G. [2], Rau, Ileana [3], Kajzar, François [4], Caria, S. [5], Murgia, M. [6], Zamboni, R. [7]
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Résumé en anglais	We have designed an original approach for efficient Second Harmonic Generation of tailored V-shape benzo[b]thiophene molecular systems enabling versatile and flexible one-step, dry and technologically friendly thin film processing. The designed moieties show $\chi(2)$ values at least as high as the reference LiNbO ₃ single crystal, without poling processing and matching the constraints of integrated optical configuration for nonlinear optical devices. This may open the way to a new class of organic materials exploitable for photonic applications.
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