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Supplementary Information

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1. General Configuration of Continuous Flow Apparatus

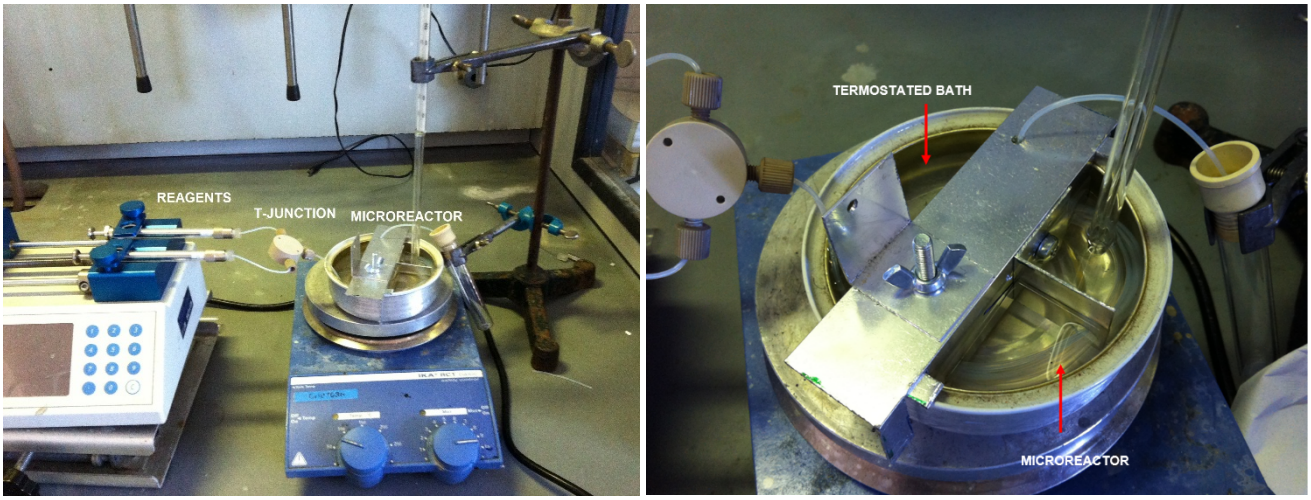
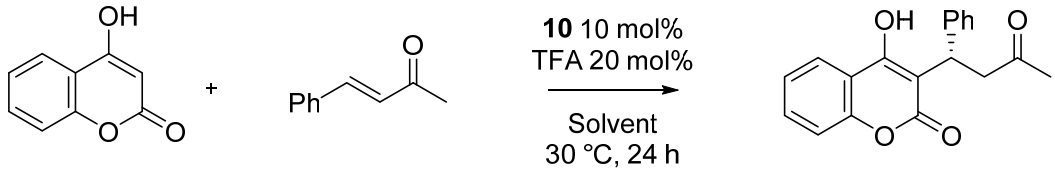


Figure S1. General configuration of continuous flow apparatus.

2. Synthesis of (*S*)-Warfarin

2.1. General Procedure for Batch Reaction

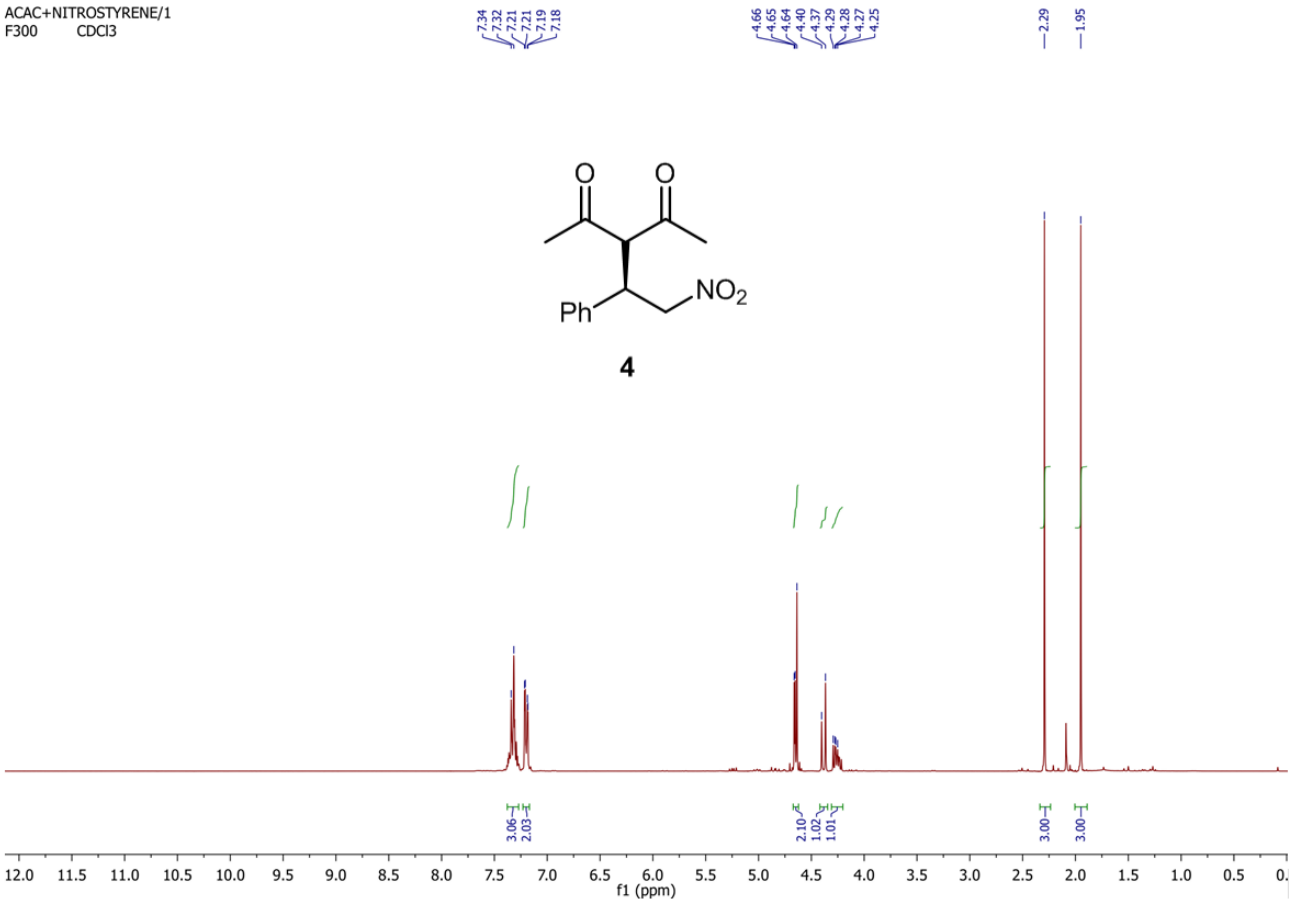


8 **9** **11**

Into a vial, catalyst **10** (5 mg, 0.015 mmol) was suspended in dry dioxane (1.5 mL) under nitrogen atmosphere then trifluoroacetic acid (0.03 mmol), benzalacetone (0.3 mmol) and 4-hydroxycoumarin (0.15 mmol) were added; the vial was sealed and the mixture was stirred at 30 ° C for 24 h. The mixture was then diluted with AcOEt (3 mL) and HCl solution (10 wt%, 1 mL) was added. The organic phase was separated and the aqueous layer was extracted twice with AcOEt (4 mL).The combined organic layer were concentrated and the crude mixture was injected to HPLC in order to determine the enantiomeric excess.

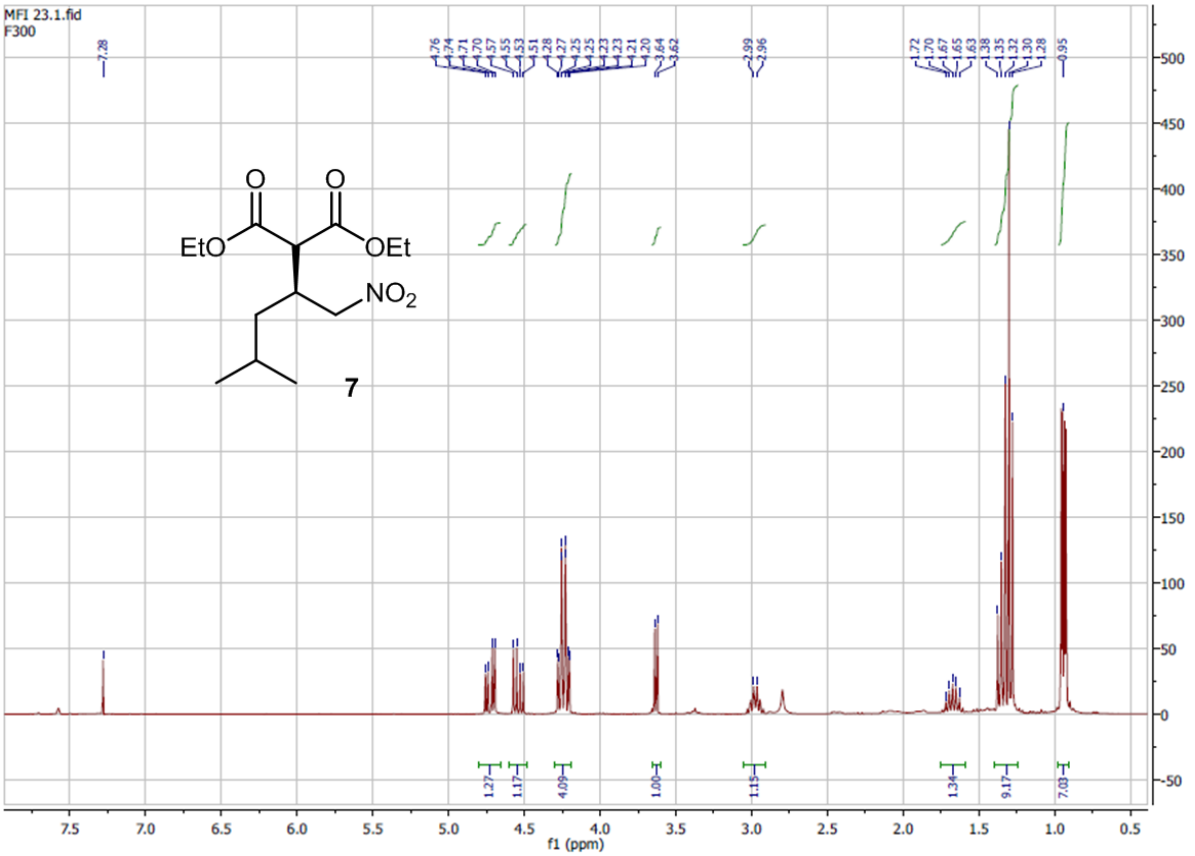
Table S1. Screening of solvents for the stereoselective synthesis of (*S*)-Warfarin.

Entry	Solvent	ee (%)
1	CH_2Cl_2	80
2	THF	84
3	Toluene	77
4	$CHCl_3$	82
5	DME	87
6	Dioxane	95

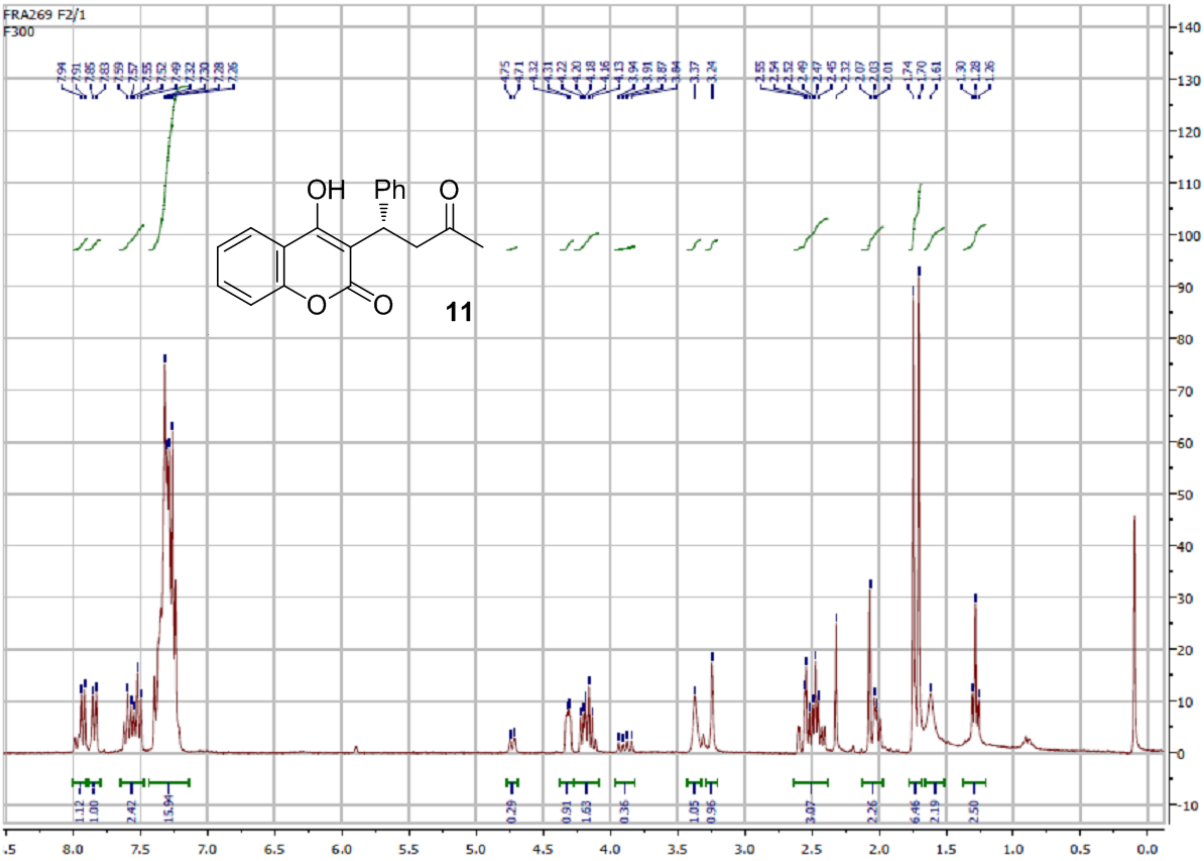


(**a**)

Figure S2. *Cont.*

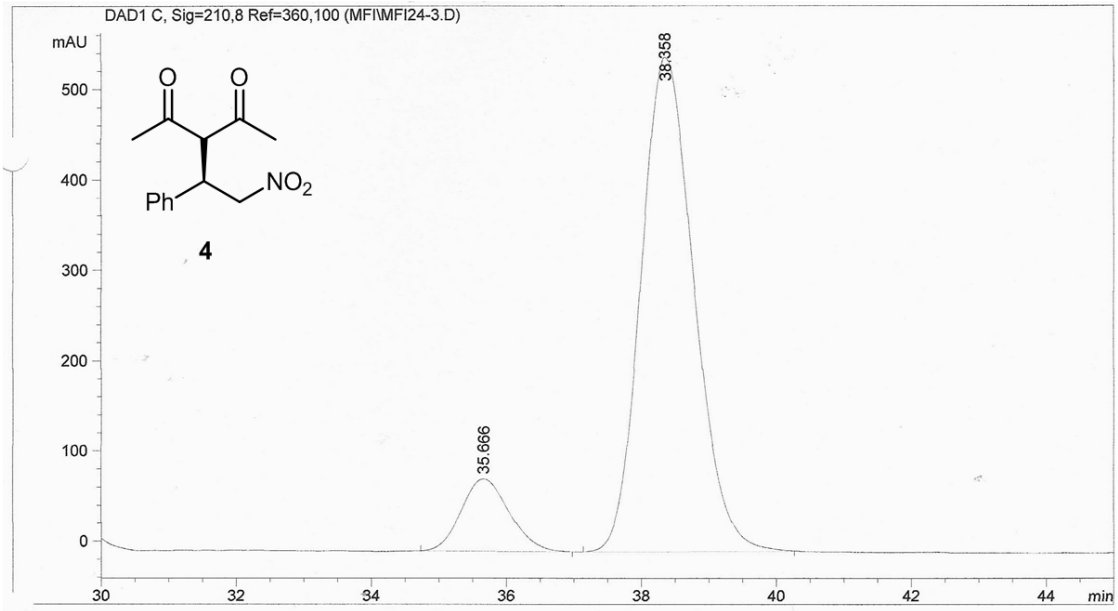


(**b**)



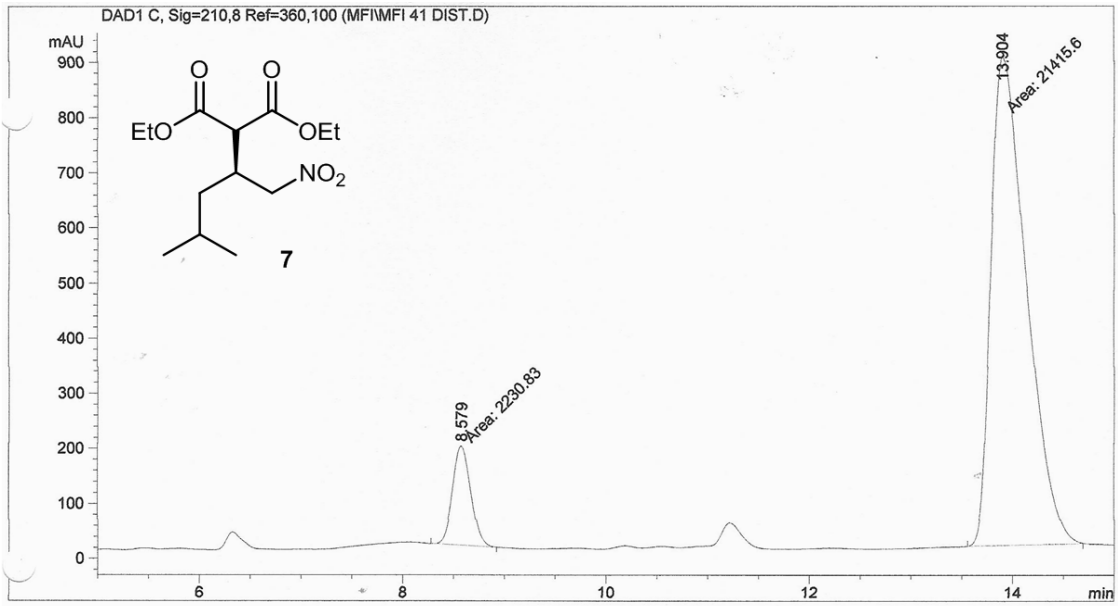
(**c**)

Figure S2. ^{1}H-NMR spectra.



Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	35.666	BB	0.5964	3979.53711	80.41180	11.7719
2	38.358	BB	0.7953	2.98258e4	546.82385	88.2281

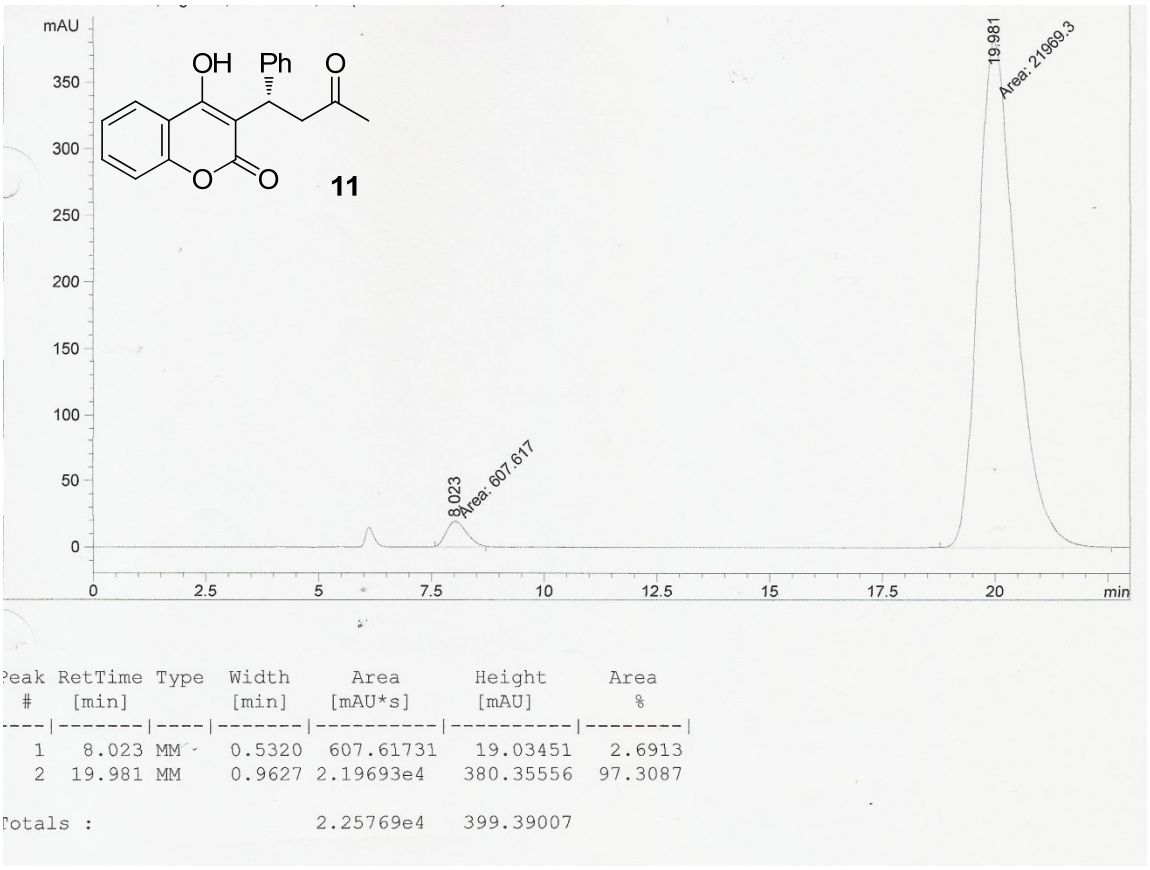
Figure S3. HPLC traces. Chiralcel OD-H column, eluent Hexane/EtOH = 95/5, flow rate 0.8 mL/min, λ = 210 nm



Signal 1: DAD1 C, Sig=210,8 Ref=360,100

Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	8.579	MM	0.2073	2230.83228	179.38551	9.4341
2	13.904	MM	0.4037	2.14156e4	884.22852	90.5659

Figure S4. HPLC traces. Chiralcel OD-H column, eluent Hexane/*i*PrOH = 98/2, flow rate 0.8 mL/min, λ = 210 nm.



Peak #	RetTime [min]	Type	Width [min]	Area [mAU*s]	Height [mAU]	Area %
1	8.023	MM	0.5320	607.61731	19.03451	2.6913
2	19.981	MM	0.9627	2.19693e4	380.35556	97.3087
Totals :				2.25769e4	399.39007	

Figure S5. HPLC traces. Chiralcel AD column, eluent Hexane/*i*PrOH = 8/2 + 0.1% TFA, flow rate 0.8 mL/min, λ = 280 nm.