

Supporting Informations

Adenine as organoinitiator / organocatalyst for the ring-opening polymerization of lactide: scope, mechanism and access to adenine-functionalized polylactide

Guilherme Nogueira,^{a,b} Audrey Favrelle,^a Marc Bria,^c João P. Prates Ramalho,^d Paulo J. Mendes,^d
Andreia Valente,^b Philippe Zinck^{a*}

^a UCCS, Unité de Catalyse et Chimie du Solide, UMR CNRS 8181, ENSCL, Université de Lille, F-59000 Lille, France

^bCentro de Química Estrutural, Faculdade de Ciências da Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal.

^cCentre Commun de mesure RMN, Université de Lille, F-59000 Lille, France

^dDepartamento de Química and Centro de Química de Évora, Escola de Ciências e Tecnologia, Universidade de Évora, Rua Romão Ramalho, 59, 7000-671 Évora, Portugal.

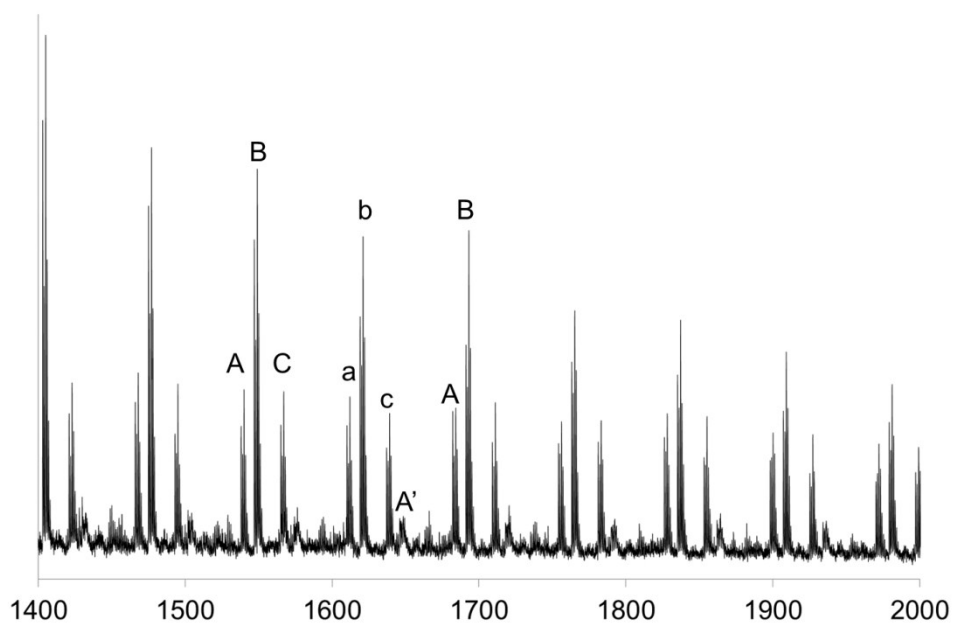
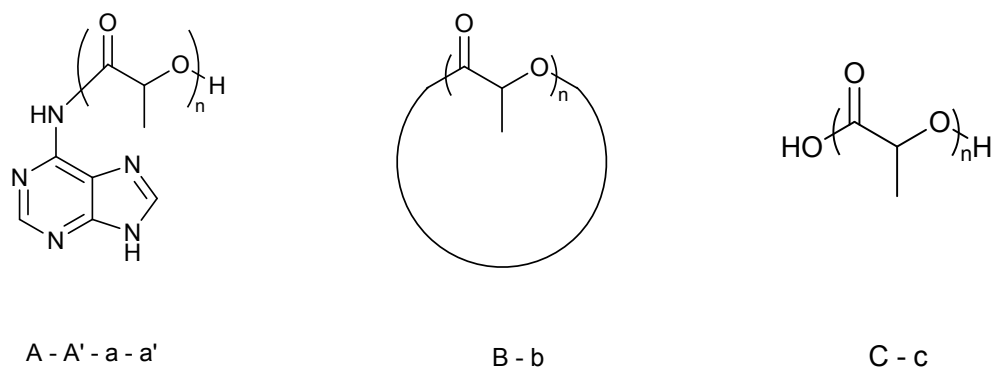


Fig. S11. MALDI ToF analysis of a sample obtained after 48h reaction at 135°C for a L-lactide / adenine ratio of 60 and structures assigned : adenine end-capped polylactide (A even and a odd, A' even with two Ag⁺), macrocycles (B, even, b odd) and carboxylic acid end-capped polylactide PLA (C even, c odd).

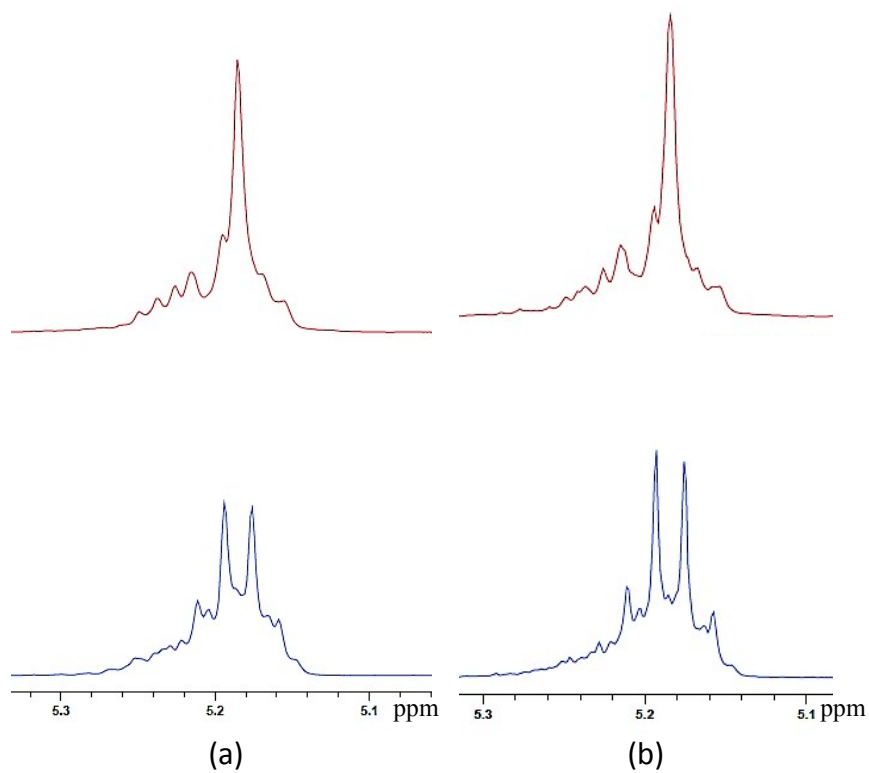


Fig. S12. ^1H (bottom) and homonuclear decoupled ^1H (top) spectra (400 MHz, CDCl_3) of the methine region of (a) entry 3 and (b) entry 10.

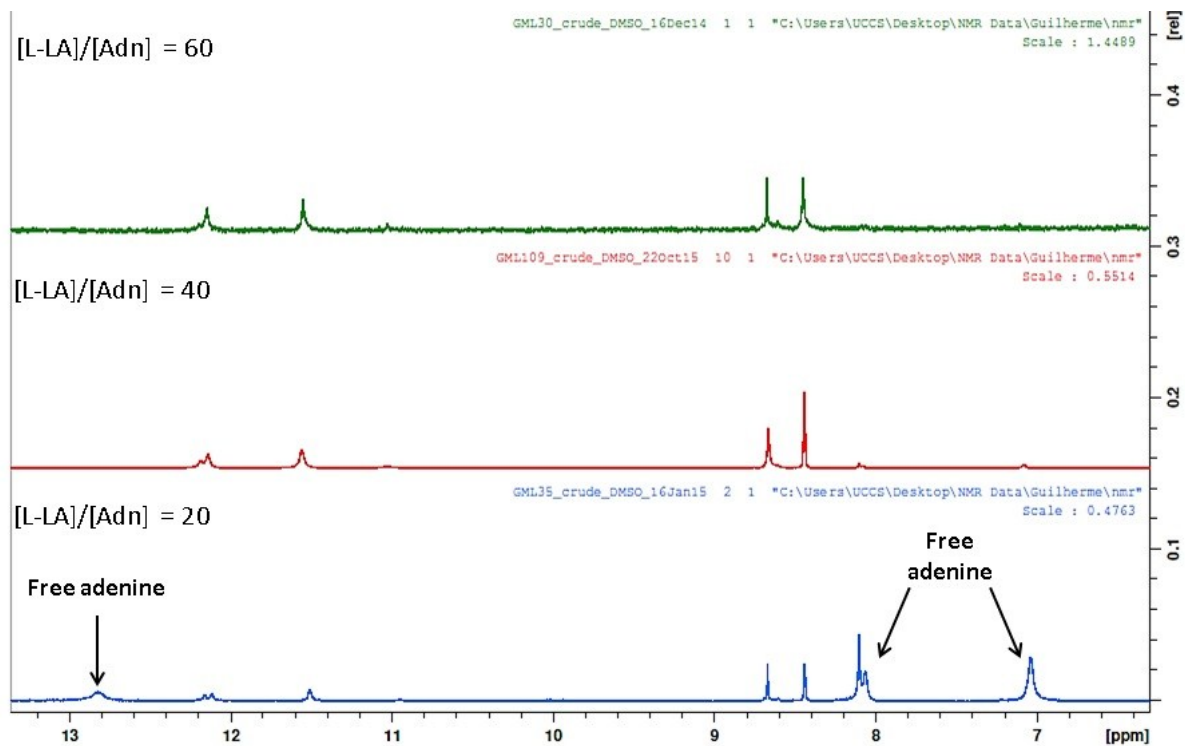
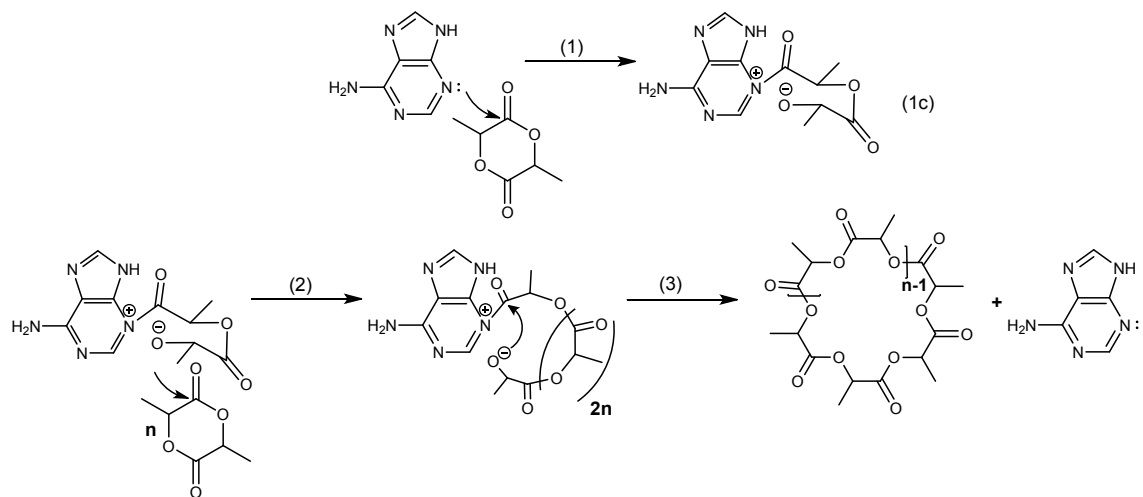


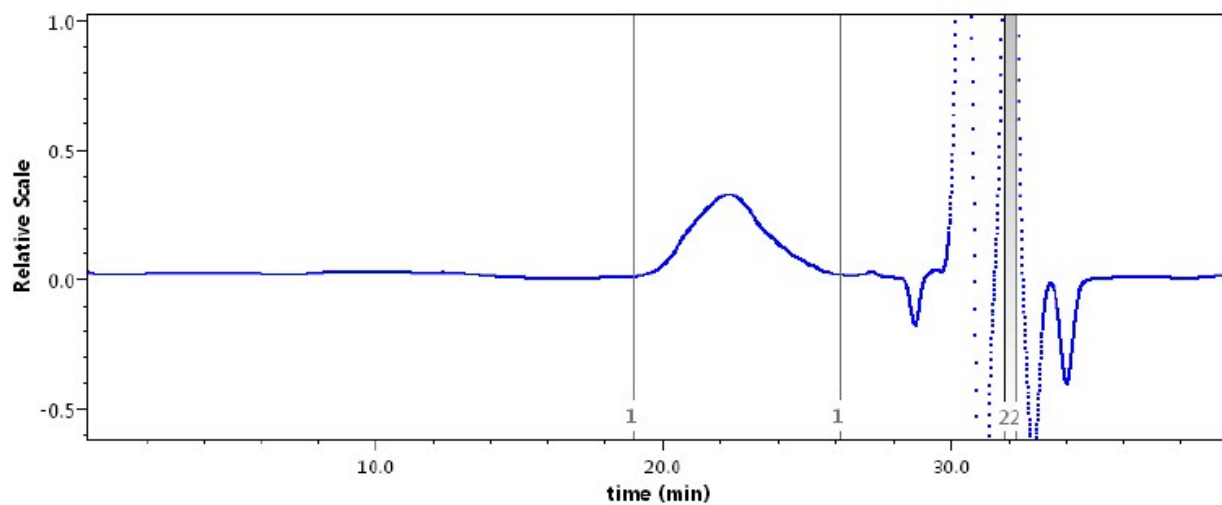
Fig. SI3. ^1H NMR spectra before quenching for [L-LA]/[Adenine] ratios of 20 (entry 3), 40 (entry 6) and 60 (entry 8)



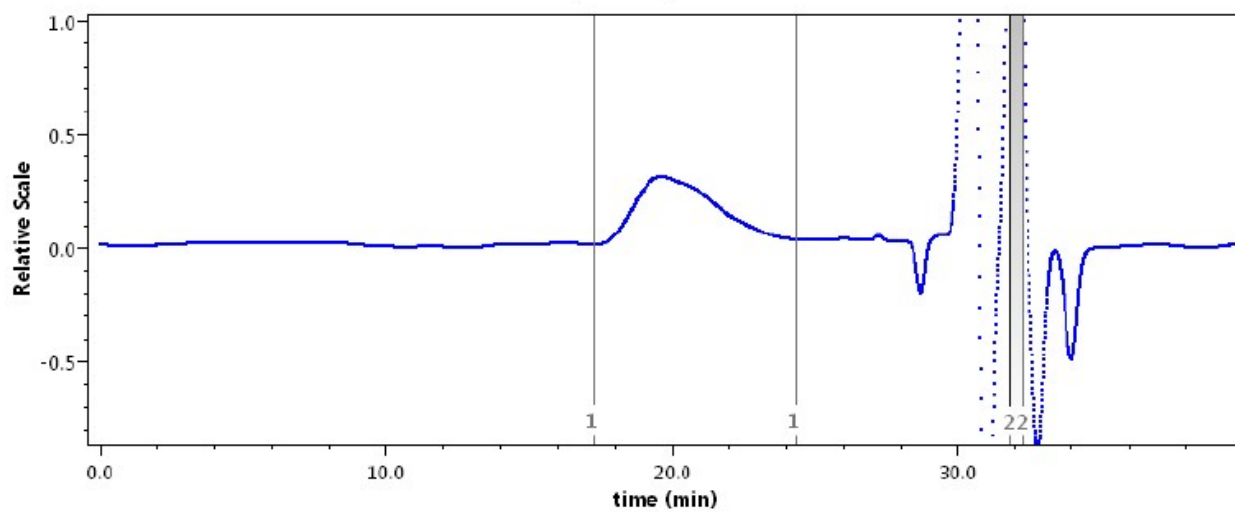
Scheme S11. Zwitterionic ring-opening polymerization (ZROP) of lactide in the presence of adenine leading to the formation of macrocycles

GPC chromatograms

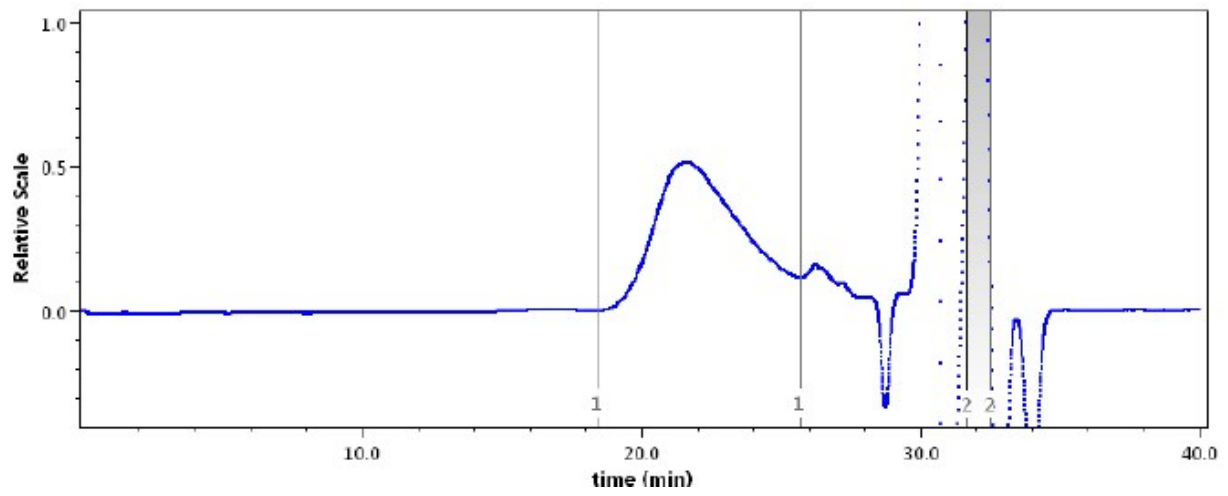
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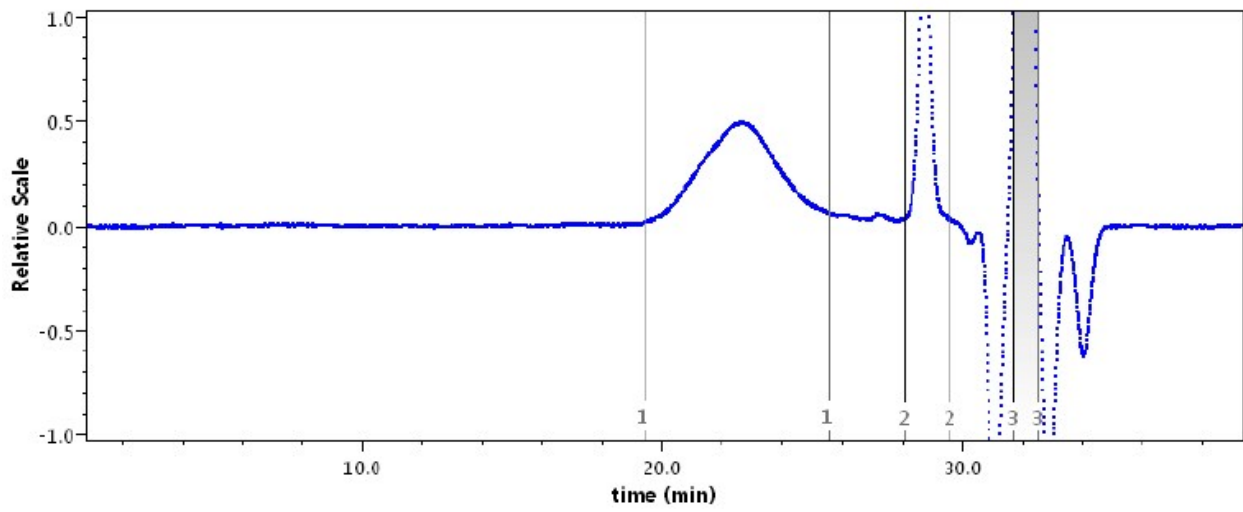
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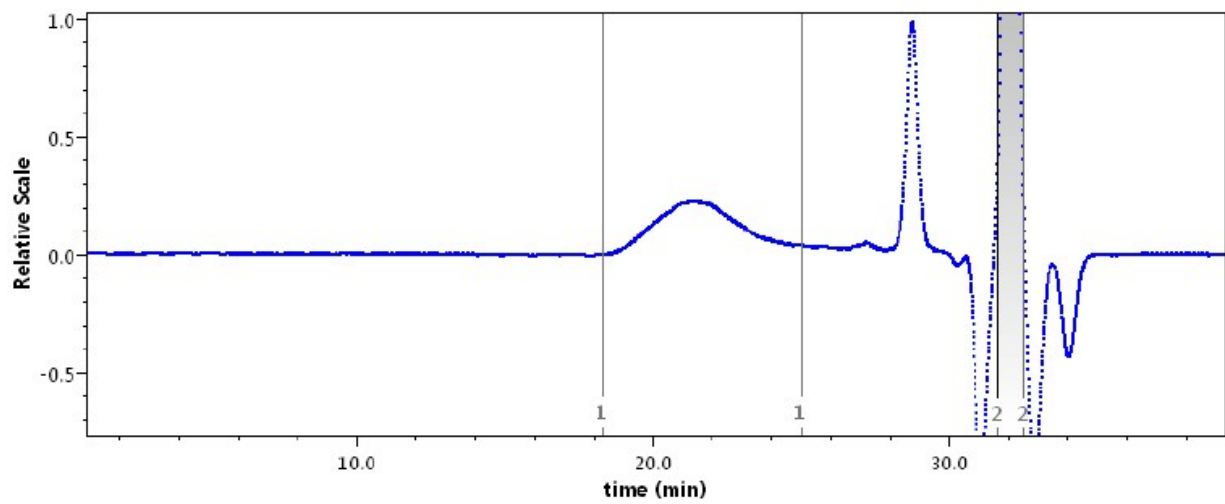
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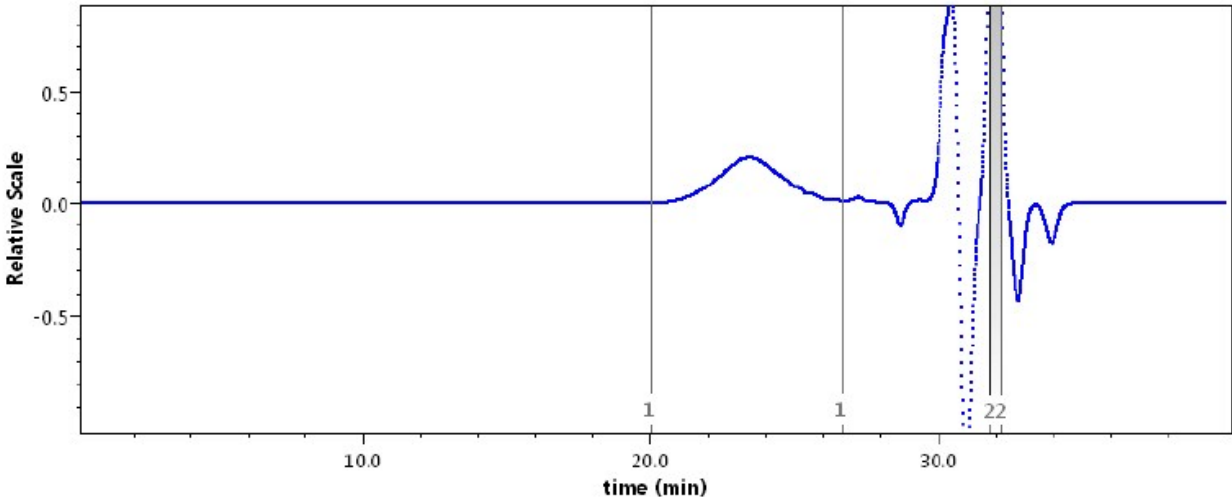
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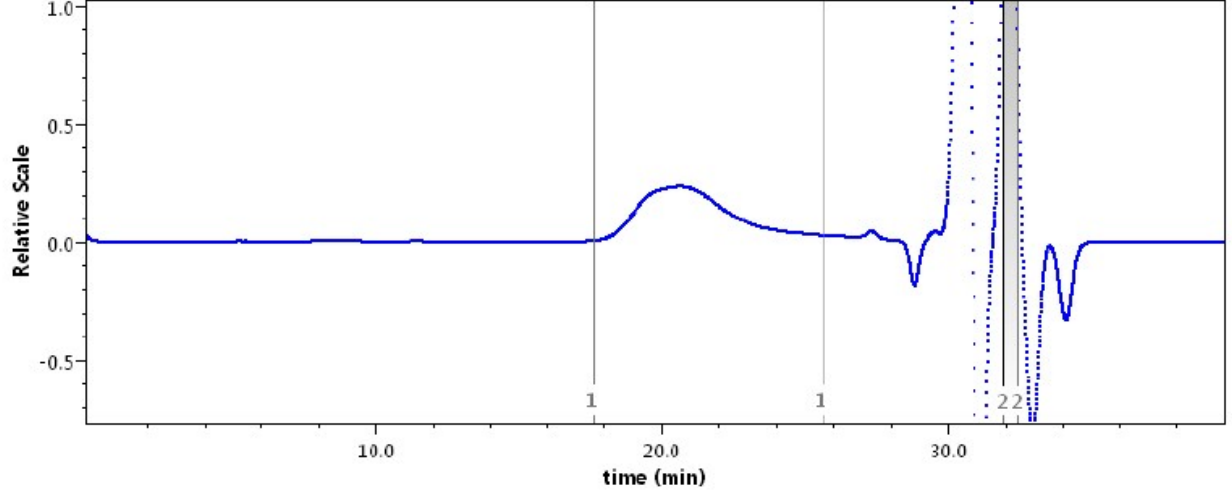
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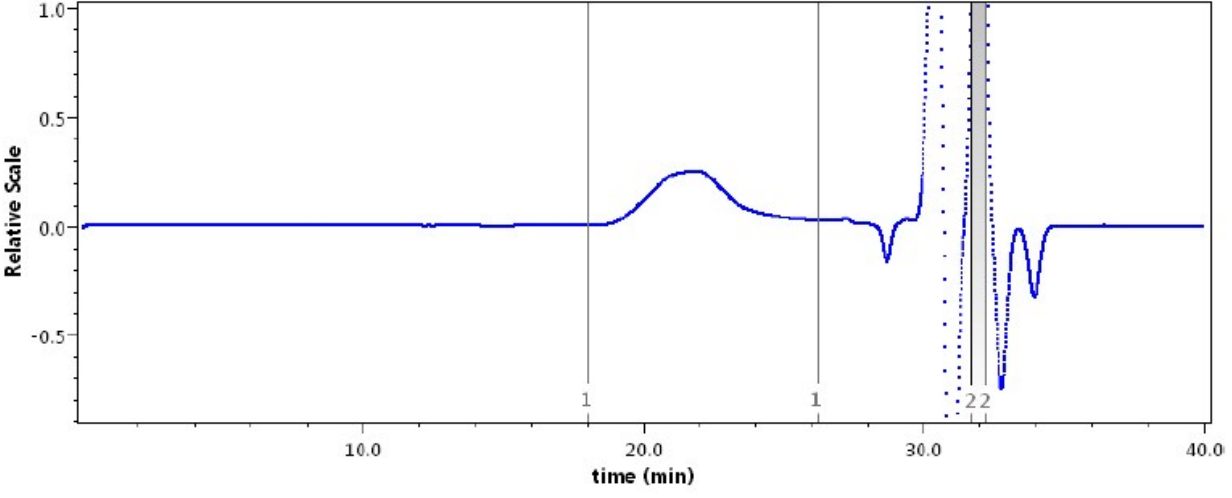
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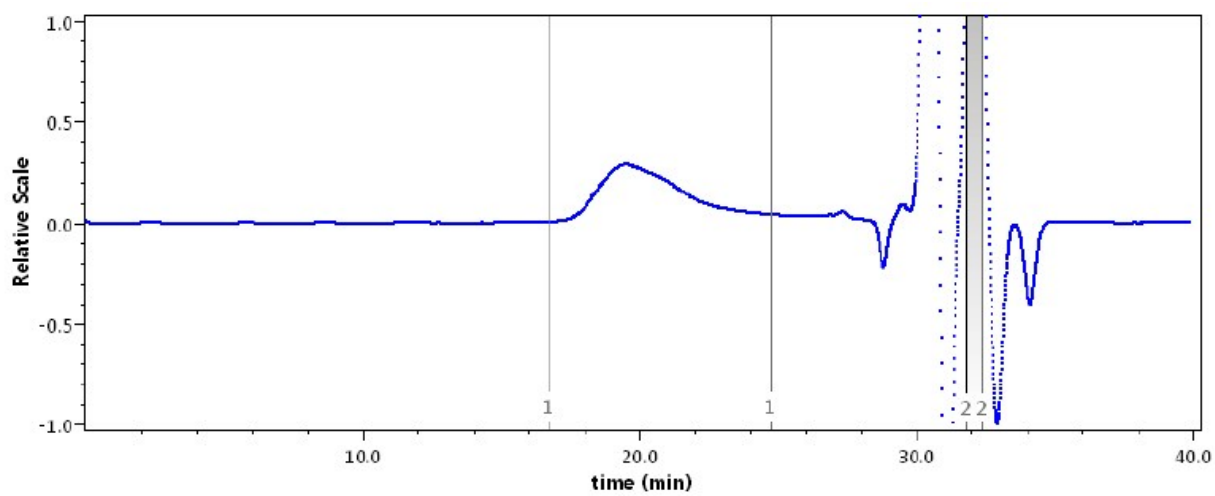
Entry 9



Entry 10



Entry 11



Entry 12



