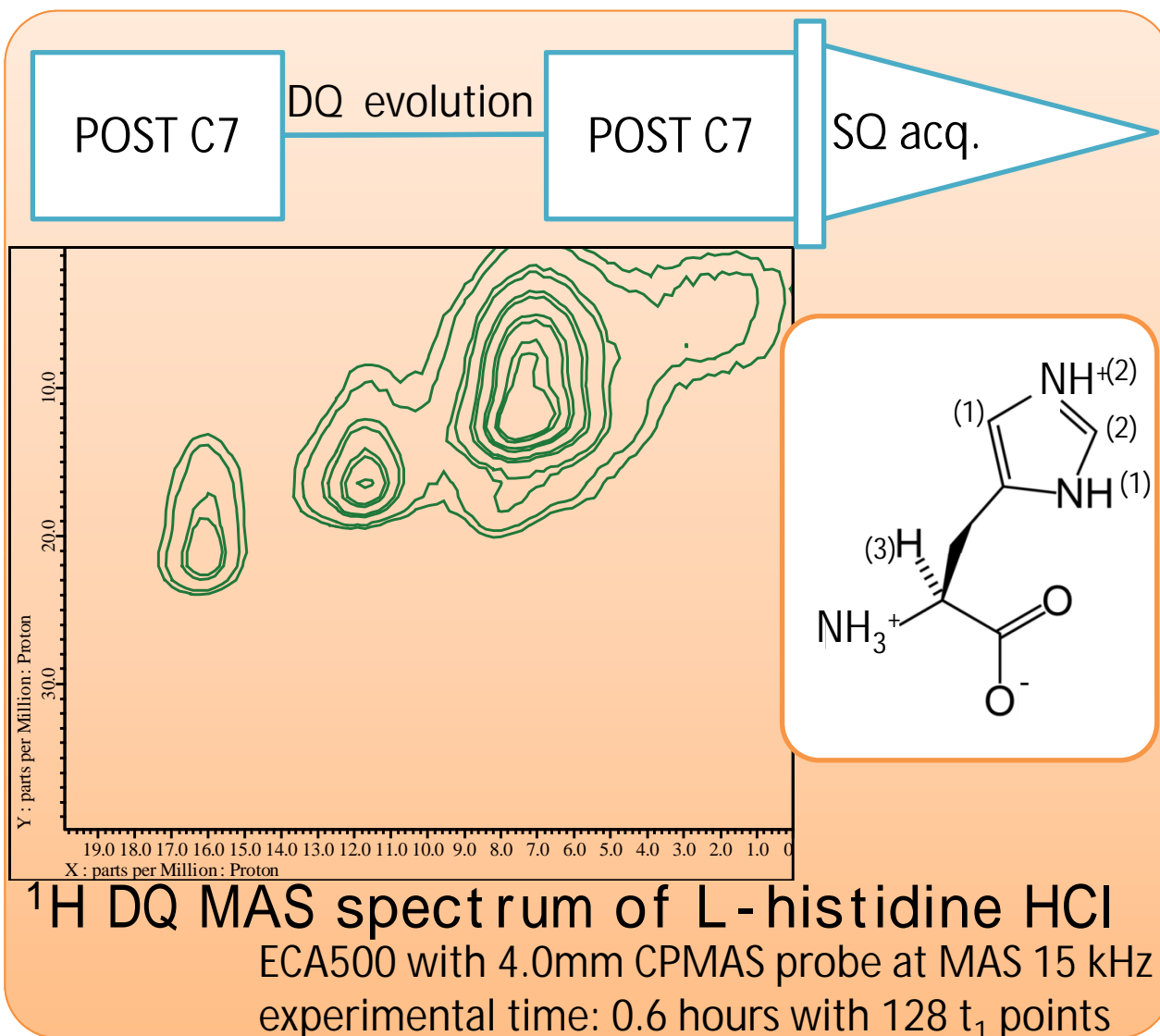


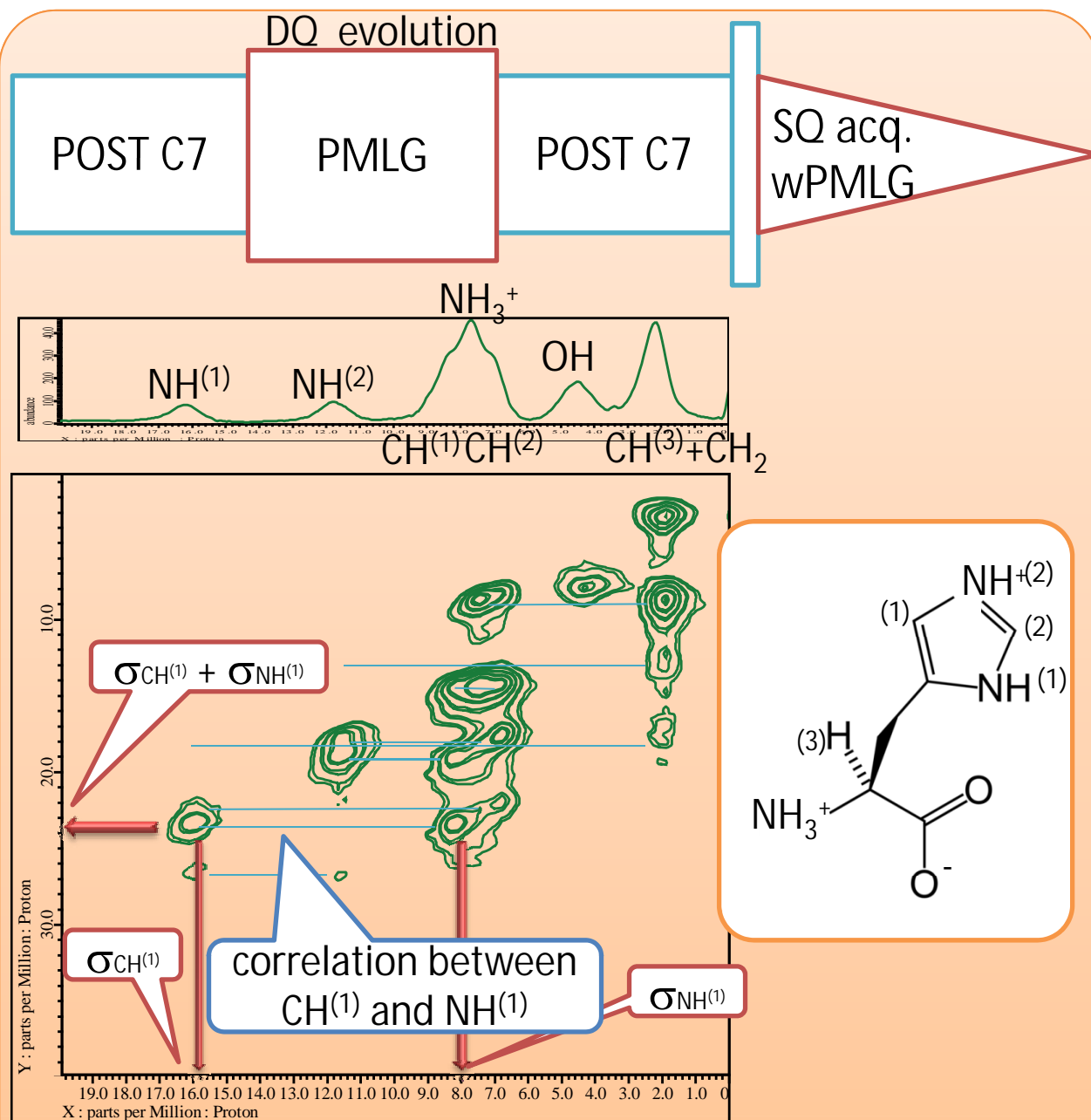
^1H DQ - CRAMPS experiment

^1H DQ-CRAMPS experiments provide information on ^1H - ^1H proximities with highly resolved ^1H peaks. Traditional ^1H DQ-MAS (without CRAMPS) experiments, with single quantum (SQ) and double quantum (DQ) dimensions, proves ^1H proximities. An application of CRAMPS to both dimensions greatly enhances resolution of DQ-MAS experiment. Results of DQ-MAS and DQ-CRAMPS experiments on L-histidine HCl are shown. A post-C7 recoupling scheme is applied to convert/reconvert DQ coherence, and wPMLG is utilized to enhance resolution.



P.K. Madhu, E. Vinogradov, S. Vega, Chem. Phys. Lett. 394 (2004) 423-428.

S.P. Brown, A. Lesage, B. Elena, L. Emsley, J. Am. Chem. Soc. 126 (2004) 13230-13231.



¹H DQ CRAMPS spectrum of L-histidine HCl

ECA500 with 4.0mm CPMAS probe at MAS 15 kHz
 experimental time: 2.8 hours with 512 t₁ points