SESSION 5. EXPERIMENTAL ATOMIC PHYSICS

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The breakthrough in 1978 by Brooks <u>et al.</u>¹ and by Breton <u>et al.</u>¹ provided the first plasma rate measurements on dielectronic recombination (DR), and their basic technique has been followed up on in a few other investigations. An important new plasma technique was introduced in 1982. Another breakthrough in 1982-1983 led to colliding beams cross section measurements for DR and to more direct comparisons with theory. Experiment/theory disagreements and agreements have led to follow-up experimental and theoretical efforts which are pointing to better understanding of DR and which emphasize issues that should be paid attention to by plasma modelers. An overview will be given with strong emphasis on the beams experiments and the implications.

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REFERENCES ¹R.L. Brooks <u>et al.</u> <u>Phys. Rev. Lett.</u> <u>41</u>, 107 (1978); C. Breton <u>et al.</u> <u>Phys. Rev. Lett.</u> <u>41</u>, 110 (1978). ²M. Bitter <u>et al.</u> <u>Bull. Am. Phys. Soc.</u> <u>27</u>, 1083 (1982). ³J.B.A. Mitchell <u>et al.</u> <u>Phys. Rev. Lett.</u> <u>50</u>, 335 (1983); B.S. Belić <u>et al.</u> <u>Phys. Rev. Lett.</u> <u>50</u>, 339 (1983); P.F. Dittner <u>et al.</u> <u>Phys.</u> <u>Rev. Lett.</u> <u>51</u>, 31 (1983); J.F. Williams, <u>Phys. Rev. A</u> <u>29</u>, 2936 (1984).