

Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Timing and Impact of Bohr's Trilogy YEUNCHEOL JEONG, LEI WANG, Physics and Astronomy, USC, Columbia, SC 29208, MING YIN, Physics/Engineering, Benedict College, Columbia, SC 29204, TIMIR DATTA, Physics and Astronomy, USC, Columbia, SC 29208 — In their article- Genesis of the Bohr Atom Heilbron and Kuhn asked - what suddenly turned his [Bohr's] attention, to atom models during June 1912- they were absolutely right; during the short period in question Bohr had made an unexpected change in his research activity, he has found a new interest “atom” and would soon produce a spectacularly successful theory about it in his now famous trilogy papers in the Phil Mag (1913). We researched the trilogy papers, Bohr's memorandum, his own correspondence from that time in question and activities by Moseley (Manchester), Henry and Lawrence Bragg. Our work suggests that Bohr, also at Manchester that summer, was likely to have been inspired by Laue's sensational discovery in April 1912, of X-ray interference from atoms in crystals. The three trilogy papers include sixty five distinct (numbered) references from thirty one authors. The publication dates of the cited works range from 1896 to 1913. Bohr showed an extraordinary skill in navigating thru the most important and up-to date works. Eleven of the cited authors (Bohr included, but not John Nicholson) were recognized by ten Noble prizes, six in physics and four in chemistry.

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Date submitted: 13 Nov 2013

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