

**Operational Experience with the MAMI-Source of Polarized Electrons**\*, H.G. ANDRESEN<sup>1</sup>,

K. AULENBACHER<sup>2</sup>, J. BERMUTH<sup>1</sup>,

P. DRESCHER<sup>2</sup>, H. EUTENEUER<sup>1</sup>, H. FISCHER<sup>2</sup>,

D.V. HARRACH<sup>1</sup>, P. HARTMANN<sup>1</sup>,

J. HOFFMANN<sup>1</sup>, P. JENNEWEIN<sup>1</sup>, K.-H. KAISER<sup>1</sup>,

S. KÖBIS<sup>1</sup>, H.J. KREIDEL<sup>1</sup>, CH. NACHTIGALL<sup>2</sup>,

S. PLÜTZER<sup>2</sup>, E. REICHERT<sup>2</sup>, K.-H. STEFFENS<sup>1</sup>,

M. STEIGERWALD<sup>2</sup>, H. TRAUTNER<sup>2</sup> - At the Mainz

race track microtron MAMI a source of polarized

electrons has been set up, which is based on the

photoelectron emission of III-V- semiconductor

cathodes. Substantial progress in the operational

stability of the source has been achieved in early 1995

by the attachment of a load lock system to the electron

gun chamber. In 1995 reactions  $2D(e^{-},e'n^{-})$  and

$3H^{-}e(e^{-},e',n)$  have been investigated at MAMI

employing the improved system in more than 1000 h

beamtime. At present the source works with strained

GaAsP-cathodes emitting electron beams with a spin

polarization of 75%.

\* Work supported by the Deutsche Forschungsgemeinschaft in SFB 201, B2.

1 Institut für Kernphysik.

2 Institut für Physik, Joh. Gutenberg Universität, Mainz.