

**Optics for the Athens CW RTM, A.V. FILIPPAS,  
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MSU - A Continuous Wave Cascade Racetrack  
Microtron (RTM) is being built at the Institute of  
Accelerating Systems and Applications (IASA).  
Making maximum use of the available equipment  
(obtained from NIST and the University of Illinois), a  
two-stage  $\nu = 1$  Cascade scheme with optics similar to  
those of the Mainz RTM was adopted. The IASA CW  
RTM will provide a variable output energy from 5 to  
240 M eV, with current intensity exceeding 100  $\mu$ A.  
The LANL side-coupled linear accelerator structure  
operates at the RF frequency of 2380 GHz. The new  
design provides excellent emittance characteristics.  
Details of the optics design, stability and operation  
criteria of the Athens CW Cascade RTM will be  
presented.