**[Nonequilibrium lighting plasmas](https://ieeexplore.ieee.org/abstract/document/125026/)**

JT **Dakin** - IEEE transactions on plasma science, 1991 - ieeexplore.ieee.org

The science of a variety of devices employing nonequilibrium lightning plasmas is reviewed.   
The devices include the fluorescent lamp, the low-pressure sodium lamp, the neon sign, …

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[**Anatomy of a vertical metal halide discharge**](https://pubs.aip.org/aip/jap/article/66/9/4074/18195)

JT **Dakin**, TH Rautenberg, [EM Goldfield](https://scholar.google.com/citations?user=MaOrDhcAAAAJ&hl=en&oi=sra) - Journal of applied physics, 1989 - pubs.aip.org

Experimental measurements are compared with model calculations for a vertical metal   
halide discharge. The 400-W arctube has a gap of 4.3 em, an inside diameter of 2.0 em, and …

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[**Frequency dependence of the pulsed high‐pressure sodium arc spectrum**](https://pubs.aip.org/aip/jap/article-abstract/56/1/118/168761)

JT **Dakin**, TH Rautenberg Jr - Journal of applied physics, 1984 - pubs.aip.org

Spectral energy distributions are calculated and measured for a wall‐stabilized high‐pressure   
Na‐Hg‐Xe arc in pulsed operation. These and other quantities are studied as a function …

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[**A model of radial variations in the low‐pressure mercury–argon positive column**](https://pubs.aip.org/aip/jap/article-abstract/60/2/563/173623)

JT **Dakin** - Journal of applied physics, 1986 - pubs.aip.org

The low‐pressure Hg–Ar positive column is studied with a model which accounts for radial   
transport mechanisms. The model calculates, not assumes, the radial density distribution for …

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[**Model and diagnostics of the high‐pressure mercury discharge with sodium iodide additives**](https://pubs.aip.org/aip/jap/article-abstract/60/4/1281/172999)

JT **Dakin**, RP Gilliard - Journal of applied physics, 1986 - pubs.aip.org

Spectroscopic data from a high‐pressure mercury arc with sodium iodide additives are   
compared with model calculations. The fused silica arc tube was oriented horizontally, and …

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[**Wall‐induced inhomogeneities in the low‐pressure Hg‐Ar positive column**](https://pubs.aip.org/aip/jap/article/63/11/5270/13724)

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Radial variations of the Hg (63Po. I. 2) densities are measured in a low-pressure Hg-Ar   
discharge and the results are compared with a model. The 34-mm-diam discharge tube is …

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[**The prediction of convection and additive demixing in vertical metal halide discharge lamps**](https://iopscience.iop.org/article/10.1149/1.2096855/meta)

JT **Dakin**, W Shyy - Journal of the Electrochemical Society, 1989 - iopscience.iop.org

A computer model solves the coupled, nonlinear equations describing a high pressure   
mercury discharge with metal halide additives. Inputs to the model include the two-dimensional, …

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[**Wrestling with Light**](https://pubs.aip.org/books/book-pdf/9017884/9780735423992.pdf)

JT **Dakin** - pubs.aip.org

This story of light grows out of a lifelong fascination with the subject—as a student, as a   
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[**Energy balance of the high‐pressure mercury discharge with sodium‐and scandium‐iodide additives**](https://pubs.aip.org/aip/jap/article/62/1/79/174113)

JT **Dakin**, RP Gilliard - Journal of applied physics, 1987 - pubs.aip.org

A high-pressure Hg discharge with NaI and ScI3 additives is studied through model   
calculations and spectroscopic diagnostics. The computer model solves the coupled energy, …

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[**A study of three-dimensional natural convection in high-pressure mercury lamps—I. Parametric variations with horizontal mounting**](https://www.sciencedirect.com/science/article/pii/001793109090183U)

PY Chang, W Shyy, JT **Dakin** - International journal of heat and mass …, 1990 - Elsevier

A three-dimensional numerical model utilizing curvilinear coordinates and an efficient   
solution method has been used to investigate natural convection in horizontal, high-pressure …

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