

12

EUROPEAN PATENT APPLICATION

21 Application number: 87118859.5

51 Int. Cl.⁵: **H01J 61/12, H01J 61/82,
H01J 61/18**

22 Date of filing: 18.12.87

30 Priority: 18.12.86 US 943981

43 Date of publication of application:
29.06.88 Bulletin 88/26

84 Designated Contracting States:
BE DE FR GB NL

88 Date of deferred publication of the search report:
30.05.90 Bulletin 90/22

71 Applicant: **GTE PRODUCTS CORPORATION**
1209 Orange Street
Wilmington Delaware 19801(US)

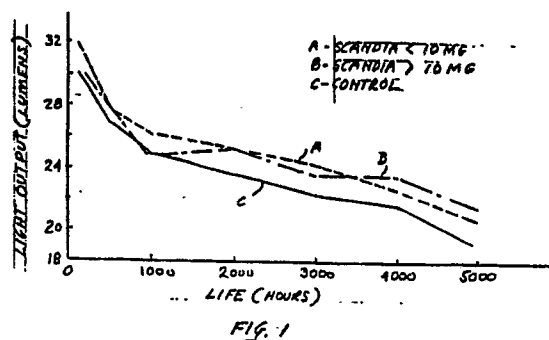
72 Inventor: **Duggan, George K.**
25, Alaska Avenue
Bedford, Massachusetts 01966(US)
Inventor: **Keeffe, William M.**
20 Haven Avenue
Rockport, Massachusetts 01966(US)

74 Representative: **Patentanwälte Grünecker,**
Kinkeldey, Stockmair & Partner
Maximilianstrasse 58
D-8000 München 22(DE)

54 **Scandium oxide additions to metal halide lamps.**

57 In its most preferred embodiments, the present invention thus represents an improved Na-Sc-I lamp, wherein the improvement consists essentially of the addition of at least about 1 mg of particulate polycrystalline scandia to the arc tube.

The positive benefits derived from this incorporation of PCS include improved lamp performance over long periods of time (e.g., 8000 hrs.) including improved lumen output, and improved maintenance and retention of CRI.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	DE-A-3 512 757 (PHILIPS) * Abstract; claim 1; page 5, lines 19-31 * ---	1-4,6	H 01 J 61/12 H 01 J 61/82 H 01 J 61/18
D,A	PATENT ABSTRACTS OF JAPAN, vol. 6, no. 173 (E-129)[1051], 7th September 1982; & JP-A-57 90 860 (TOKYO SHIBAURA DENKI K.K.) 05-06-1982 ---	1-4,9	
A	PATENT ABSTRACTS OF JAPAN, vol. 6, no. 128 (E-118)[1006], 14th July 1982; & JP-A-57 53 064 (TOKYO SHIBAURA DENKI K.K.) 29-03-1982 ---	1	
A	FR-A-2 102 866 (LABORATOIRE CENTRAL DE L'ECLAIRAGE) * Tables * ---	1,2,4	
A	GB-A-2 116 356 (HITACHI) * Abstract; page 2, lines 84-89 * ---	1,8-10	
A	EP-A-0 178 716 (PHILIPS) * Abstract; page 2, line 3; claims 1,2 * ---	8,10	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	CHEMICAL ABSTRACTS, vol. 96, no. 20, May 1982, page 307, abstract no. 167363q, Columbus, Ohio, US; I.I. NAGAYUK et al.: "Sintering of scandium oxide prepared by the decomposition of hydroxides", & TR. - MOSK. KHIM.-TEKHNOL. INST. IM. D. I. MENDELEEVA 1980, 116, 29-31 -----	8,10	H 01 J C 04 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28-02-1990	Examiner MARTIN Y VICENTE M.A.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	