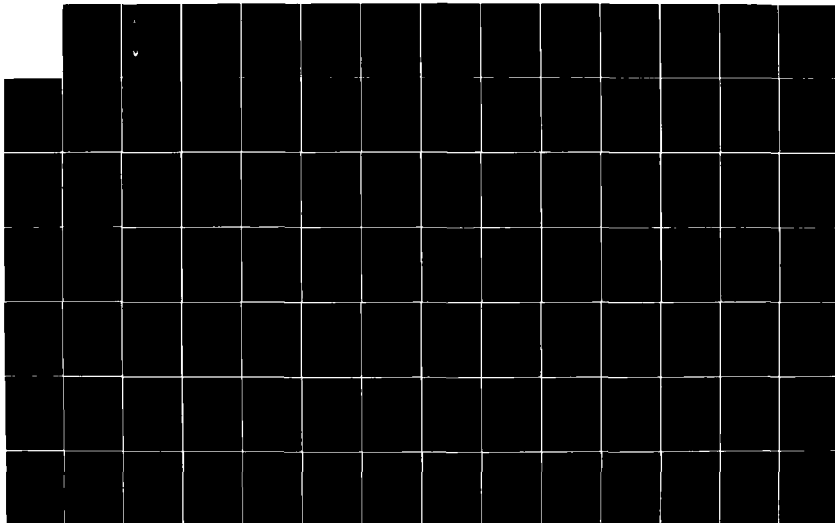
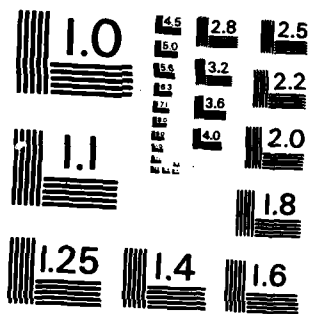


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**CUMULATIVE REACTANT SPECIES INDEX FOR VOLUMES I-VIII
OF THE COMPILATION OF DATA RELEVANT TO GAS LASERS
VOLUME IX**

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number) See Reverse		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This volume contains a cumulative reactant species index for MIRADCOM Technical Report H-78-1. Volumes I and II covered data relevant to rare gas and gas-monohalide excimer lasers; Volumes III - VI covered data relevant to nuclear pumped lasers; and Volumes VII - VIII covered additional data relevant to gas lasers.		

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19. KEYWORDS

Lasers

Rare gas - rare gas excimers

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Cross sections

Lifetimes

Reaction rates

Transport properties

Particle collisions

Potential energy curves

Excitation

Ionization

Laser pumping mechanisms

Heavy nuclides

Light nuclides

High energy electron beams

High energy ion beams

Notes Concerning Use of Index

1. For references to electron - heavy particle collisions, look under "Electrons".
2. For references to photon - heavy particle collisions, look under the heading for the heavy particle involved.
3. For references to heavy particle - heavy particle collisions, it may be necessary to look under the headings for each of the species involved. In general, each combination of reactants is listed only once.

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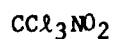
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On Cl^- , two-body recombination 1359



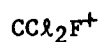
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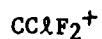
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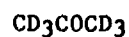
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On Cl^- , two-body recombination 1359



Electron affinity 1161



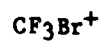
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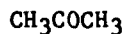
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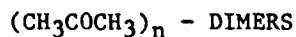
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$\text{CO}_3(\text{H}_2\text{O})$

Electron affinity 1162

CO_3^-

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$\text{CO}_3^- \cdot \text{H}_2\text{O}$

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$\text{Ca}(^1\text{P}_1)$

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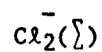
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Energy parameters 152



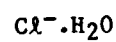
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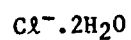
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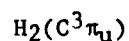
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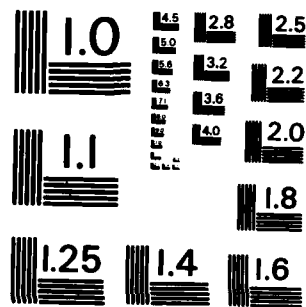
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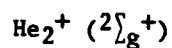
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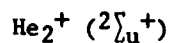
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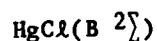


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On He, high-energy electron capture	1639
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Electron affinity 1160

On Br , charge transfer 2785

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NH₂

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NH₂⁺

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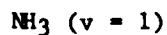
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NO₂^{-*}

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NO_3

Electron affinity 1162

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Na

Electron affinity 1160

On Br, charge transfer 2786

On Cl, charge transfer 2785

On I, charge transfer 2786

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Nb

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Ni

Polarizability 1157

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 On Al, sputtering yield 3172
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 On Au, sputtering yield 3186
 On Ba, charge transfer 2780
 On Be, sputtering yield 3170
 On Br⁻, three-body recombination 2677-2681
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 On Cu, sputtering yield 3179
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On Pd, sputtering yield 3182

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On Ta, sputtering yield 3184

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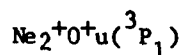
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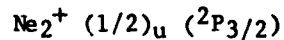
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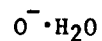
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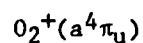
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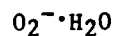
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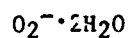
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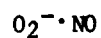


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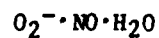
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O_3

Electron affinity 1162

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O_4

Electron affinity 1162

3366

O_4^+

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Polarizability 1157

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P

Electron affinity 1160

Polarizability 1156

p^+

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3367

P⁻

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PH

Electron affinity 1161

PH₂

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PO

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Pa

Polarizability 1157

Pb

Polarizability 1157

Pb⁺

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Pd

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Pm

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Po

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Electron affinity 1160

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Re

Polarizability 1157

Rh

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Ru

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Electron affinity 1160

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S⁺

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Electron affinity 1161

SF₄

Electron affinity 1161

SF₅

Electron affinity 1161

SF₆

Electron affinity 1161

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SH

Electron affinity 1162

SH⁻

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SO

Electron affinity 1162

SO⁻

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3372

SO_2

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Electron affinity 1162

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S_2

Electron affinity 1162

Sb

Polarizability 1157

Sb^+

On Ar, high-energy electron capture 1629

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Sc

Polarizability 1156

Sc^+

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Se

Electron affinity 1160

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Polarizability 1156

SeF₆

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Si

Polarizability 1156

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Si⁺

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Si⁻

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SiH

Electron affinity 1162

SiH₂

Electron affinity 1162

Sm

Polarizability 1157

3374

Sn

Polarizability 1157

Sr

On Ar, high-energy electron capture 1627

high-energy electron loss 1627

On N₂, high-energy electron capture 1627

high-energy electron loss 1627

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high-energy electron loss 1627

Polarizability 1156

Sr(¹P₁)

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Ta

Photoelectric yields 888

Polarizability 1157

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Tb

Polarizability 1157

Tc

Polarizability 1157

Te

Electron affinity 1160

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TeF₆

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Th

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Ti

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Ti⁺

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3376

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TlKr

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U

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UF₅

Electron affinity 1161

UF₆

Electron affinity 1161

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Polarizability 1156

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W

Photoelectric yields 888, 891

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Xe

Average energy expended by a charged particle to create an ion pair	814
Continuous free - free absorption coefficients	693
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Electron affinity	214, 1160
Free - free absorption cross section	2078
General wavelength ranges for observed emission continua	711
Interaction parameters	1187
Ionizations per volt per mm Hg at 0° C	732
Lifetimes	205-6, 211
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Multiphoton ionization	700
On Ar, high-energy electron capture	1630
high-energy electron loss	1630
On N ₂ , high-energy electron capture	1630
high-energy electron loss	1630
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 On Al, sputtering yield 3172
 On Ar, high-energy electron capture 1630
 high-energy electron loss 1630
 On Au, sputtering yield 3186
 On Be, sputtering yield 3170
 On Br⁻, three-body recombination 2692-2696, 2707-2711
 On C, sputtering yield 3171
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 On Cs, sputtering yield 3175
 On Cu, sputtering yield 3179
 On F⁻, three-body recombination 1362, 1375-76, 2692-2696, 2707-2711
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 On Fe, sputtering yield 3177
 On He, high-energy excitation 1647
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 On Kr, high-energy production of free electrons 1622
 On Mo, electron yields 864, 866
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 On V, sputtering yield 3174
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XeF₂

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