

Electron scattering cross sections for N₂O (recommended data)

| Total momentum transfer | | | | | |
|-------------------------|--|--------|--|--------|--|
| E (eV) | Q (10 ⁻¹⁶ cm ²) | E (eV) | Q (10 ⁻¹⁶ cm ²) | E (eV) | Q (10 ⁻¹⁶ cm ²) |
| 0.0 | 500 | 0.35 | 5.14 | 7.0 | 11.42 |
| 0.001 | 170 | 0.40 | 4.858 | 8.0 | 12.13 |
| 0.002 | 114.0 | 0.45 | 4.69 | 10.0 | 12.46 |
| 0.005 | 69.0 | 0.50 | 4.641 | 12.0 | 12.778 |
| 0.01 | 47.0 | 0.60 | 4.81 | 15.0 | 13.541 |
| 0.02 | 32.4 | 0.70 | 5.263 | 20.0 | 14.045 |
| 0.03 | 25.2 | 0.80 | 5.91 | 25.0 | 14.1 |
| 0.04 | 21.4 | 0.90 | 6.7 | 30.0 | 14.26 |
| 0.05 | 19.0 | 1.0 | 6.53 | 40.0 | 13.85 |
| 0.06 | 17.2 | 1.2 | 7.97 | 50.0 | 12.73 |
| 0.07 | 15.5 | 1.5 | 10.07 | 60.0 | 11.62 |
| 0.08 | 14.51 | 2.0 | 14.02 | 80.0 | 9.89 |
| 0.09 | 13.672 | 2.34 | 15.405 | 100.0 | 8.6 |
| 0.1 | 12.794 | 2.5 | 14.81 | 200.0 | 5.03 |
| 0.12 | 11.321 | 3.0 | 13.18 | 500.0 | 2.05 |
| 0.15 | 9.525 | 3.5 | 10.55 | 1000.0 | 1.08 |
| 0.18 | 7.835 | 4.0 | 9.43 | 2000.0 | 0.364 |
| 0.20 | 7.033 | 4.5 | 8.99 | 4000.0 | 0.185 |
| 0.25 | 6.176 | 5.0 | 11.21 | | |
| 0.30 | 5.52 | 6.0 | 12.13 | | |

| Elastic momentum transfer | | | | | |
|---------------------------|--|--------|--|--------|--|
| E (eV) | Q (10 ⁻¹⁶ cm ²) | E (eV) | Q (10 ⁻¹⁶ cm ²) | E (eV) | Q (10 ⁻¹⁶ cm ²) |
| 0.0 | 500 | 0.35 | 3.71 | 7.0 | 9.186 |
| 0.001 | 170 | 0.40 | 3.39 | 8.0 | 9.805 |
| 0.002 | 114 | 0.45 | 3.23 | 10.0 | 10.823 |
| 0.005 | 69 | 0.50 | 3.215 | 12.0 | 11.33 |
| 0.01 | 47 | 0.60 | 3.44 | 15.0 | 11.19 |
| 0.02 | 32.4 | 0.70 | 3.93 | 20.0 | 10.13 |
| 0.03 | 25.2 | 0.80 | 4.54 | 25.0 | 8.994 |
| 0.04 | 21.4 | 0.90 | 5.22 | 30.0 | 8.036 |
| 0.05 | 19.0 | 1.0 | 4.916 | 40.0 | 6.573 |
| 0.06 | 17.2 | 1.2 | 6.02 | 50.0 | 5.525 |
| 0.07 | 15.5 | 1.5 | 7.325 | 60.0 | 4.7 |
| 0.08 | 14.3 | 2.0 | 8.86 | 80.0 | 3.617 |
| 0.09 | 13.4 | 2.34 | 9.41 | 100.0 | 2.936 |
| 0.1 | 12.5 | 2.5 | 9.45 | 200.0 | 1.52 |
| 0.12 | 11.0 | 3.0 | 10.73 | 500.0 | 0.603 |
| 0.15 | 9.2 | 3.5 | 9.67 | 1000.0 | 0.295 |
| 0.18 | 7.2 | 4.0 | 8.926 | 2000.0 | 0.096 |
| 0.20 | 6.3 | 4.5 | 8.54 | 4000.0 | 0.039 |
| 0.25 | 5.41 | 5.0 | 9.61 | | |
| 0.30 | 4.32 | 6.0 | 10.13 | | |

| Vibrational excitation (001 mode) | | | | | |
|-----------------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 0.073 | 0.0 | 0.345 | 0.225 | 3.3954 | 0.042 |
| 0.074 | 0.101 | 0.351 | 0.222 | 4.022 | 0.04 |
| 0.076 | 0.122 | 0.369 | 0.214 | 4.235 | 0.036 |
| 0.078 | 0.167 | 0.376 | 0.212 | 4.459 | 0.034 |
| 0.08 | 0.209 | 0.389 | 0.208 | 4.537 | 0.034 |
| 0.085 | 0.245 | 0.416 | 0.199 | 4.695 | 0.034 |
| 0.09 | 0.273 | 0.424 | 0.196 | 5.295 | 0.04 |
| 0.1 | 0.294 | 0.438 | 0.192 | 5.48 | 0.042 |
| 0.107 | 0.308 | 0.454 | 0.187 | 5.575 | 0.044 |
| 0.111 | 0.317 | 0.462 | 0.185 | 5.77 | 0.047 |
| 0.113 | 0.319 | 0.486 | 0.180 | 6.397 | 0.063 |
| 0.136 | 0.327 | 0.503 | 0.177 | 6.508 | 0.067 |
| 0.156 | 0.325 | 0.512 | 0.177 | 6.621 | 0.071 |
| 0.165 | 0.319 | 0.55 | 0.175 | 7.467 | 0.104 |
| 0.167 | 0.317 | 0.58 | 0.176 | 7.596 | 0.107 |
| 0.173 | 0.313 | 0.6 | 0.18 | 8.421 | 0.101 |
| 0.176 | 0.312 | 0.7 | 0.2 | 8.567 | 0.096 |
| 0.182 | 0.31 | 0.8 | 0.225 | 9.177 | 0.072 |
| 0.186 | 0.308 | 1.0 | 0.265 | 9.336 | 0.065 |
| 0.195 | 0.302 | 1.2 | 0.310 | 9.498 | 0.059 |
| 0.199 | 0.301 | 1.5 | 0.370 | 10.529 | 0.031 |
| 0.202 | 0.299 | 1.8 | 0.415 | 10.712 | 0.027 |
| 0.206 | 0.297 | 1.9 | 0.430 | 11.278 | 0.020 |
| 0.217 | 0.287 | 2.023 | 0.446 | 12.503 | 0.014 |
| 0.22 | 0.285 | 2.058 | 0.449 | 13.164 | 0.014 |
| 0.224 | 0.283 | 2.13 | 0.455 | 13.393 | 0.013 |
| 0.236 | 0.277 | 2.167 | 0.458 | 14.101 | 0.013 |
| 0.24 | 0.275 | 2.243 | 0.455 | 14.847 | 0.012 |
| 0.244 | 0.273 | 2.281 | 0.453 | 15.633 | 0.012 |
| 0.257 | 0.264 | 2.361 | 0.437 | 15.903 | 0.012 |
| 0.262 | 0.262 | 2.402 | 0.427 | 16.179 | 0.011 |
| 0.276 | 0.255 | 2.444 | 0.413 | 17.936 | 0.01 |
| 0.28 | 0.252 | 2.486 | 0.396 | 18.247 | 0.01 |
| 0.285 | 0.249 | 2.756 | 0.282 | 18.563 | 0.01 |
| 0.29 | 0.247 | 2.804 | 0.261 | 19.545 | 0.01 |
| 0.306 | 0.240 | 3.162 | 0.134 | 19.884 | 0.01 |
| 0.311 | 0.237 | 3.33 | 0.098 | 20.229 | 0.01 |
| 0.327 | 0.230 | 3.387 | 0.088 | | |
| 0.333 | 0.229 | 3.567 | 0.067 | | |
| 0.339 | 0.228 | 3.628 | 0.061 | | |

| Vibrational excitation (010 mode) | | | | | |
|-----------------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 0.159 | 0.0 | 0.618 | 0.377 | 2.902 | 1.081 |
| 0.162 | 0.15 | 0.629 | 0.374 | 2.952 | 0.949 |
| 0.167 | 0.211 | 0.662 | 0.368 | 3.108 | 0.664 |
| 0.17 | 0.251 | 0.674 | 0.368 | 3.162 | 0.598 |
| 0.189 | 0.391 | 0.709 | 0.377 | 3.33 | 0.429 |

| | | | | | |
|-------|-------|-------|-------|--------|-------|
| 0.199 | 0.429 | 0.747 | 0.393 | 3.506 | 0.313 |
| 0.209 | 0.458 | 0.76 | 0.397 | 3.567 | 0.285 |
| 0.213 | 0.464 | 0.8 | 0.417 | 3.755 | 0.21 |
| 0.224 | 0.48 | 0.814 | 0.422 | 4.309 | 0.109 |
| 0.236 | 0.495 | 0.857 | 0.442 | 4.537 | 0.098 |
| 0.24 | 0.498 | 0.872 | 0.447 | 4.615 | 0.095 |
| 0.253 | 0.501 | 0.918 | 0.472 | 5.295 | 0.086 |
| 0.266 | 0.501 | 0.966 | 0.501 | 5.575 | 0.089 |
| 0.276 | 0.501 | 1.017 | 0.535 | 6.181 | 0.096 |
| 0.28 | 0.501 | 1.071 | 0.574 | 6.508 | 0.105 |
| 0.295 | 0.501 | 1.09 | 0.588 | 7.34 | 0.133 |
| 0.300 | 0.501 | 1.147 | 0.635 | 7.728 | 0.14 |
| 0.316 | 0.501 | 1.208 | 0.682 | 8.278 | 0.134 |
| 0.322 | 0.501 | 1.316 | 0.782 | 8.867 | 0.112 |
| 0.339 | 0.492 | 1.339 | 0.805 | 9.336 | 0.087 |
| 0.345 | 0.489 | 1.41 | 0.886 | 10.173 | 0.059 |
| 0.351 | 0.486 | 1.435 | 0.912 | 11.278 | 0.045 |
| 0.369 | 0.48 | 1.51 | 1.015 | 12.503 | 0.041 |
| 0.376 | 0.478 | 1.537 | 1.053 | 13.164 | 0.039 |
| 0.389 | 0.472 | 1.59 | 1.151 | 13.861 | 0.038 |
| 0.409 | 0.464 | 1.675 | 1.335 | 14.101 | 0.037 |
| 0.416 | 0.461 | 1.704 | 1.4 | 16.179 | 0.034 |
| 0.424 | 0.455 | 1.794 | 1.634 | 17.035 | 0.032 |
| 0.438 | 0.45 | 1.825 | 1.712 | 18.247 | 0.03 |
| 0.446 | 0.445 | 1.921 | 1.963 | 19.212 | 0.029 |
| 0.454 | 0.44 | 1.954 | 2.045 | 20.229 | 0.028 |
| 0.462 | 0.437 | 2.058 | 2.33 | 22.426 | 0.026 |
| 0.486 | 0.424 | 2.094 | 2.429 | 22.814 | 0.025 |
| 0.494 | 0.419 | 2.130 | 2.514 | 24.021 | 0.024 |
| 0.503 | 0.414 | 2.243 | 2.65 | 26.176 | 0.023 |
| 0.530 | 0.404 | 2.361 | 2.604 | 27.561 | 0.022 |
| 0.539 | 0.402 | 2.402 | 2.545 | 28.039 | 0.021 |
| 0.548 | 0.4 | 2.529 | 2.212 | 30.554 | 0.02 |
| 0.577 | 0.39 | 2.709 | 1.663 | | |
| 0.587 | 0.388 | 2.756 | 1.508 | | |

| Vibrational excitation (100 mode) | | | | | |
|-----------------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 0.276 | 0 | 1.017 | 0.829 | 3.691 | 0.376 |
| 0.28 | 0.198 | 1.053 | 0.849 | 3.82 | 0.332 |
| 0.285 | 0.242 | 1.09 | 0.874 | 3.954 | 0.301 |
| 0.29 | 0.326 | 1.128 | 0.901 | 4.022 | 0.287 |
| 0.295 | 0.404 | 1.167 | 0.933 | 4.235 | 0.255 |
| 0.306 | 0.514 | 1.208 | 0.973 | 4.383 | 0.242 |
| 0.316 | 0.593 | 1.25 | 1.015 | 4.537 | 0.236 |
| 0.327 | 0.651 | 1.316 | 1.089 | 6.075 | 0.371 |
| 0.339 | 0.69 | 1.339 | 1.116 | 6.288 | 0.418 |
| 0.351 | 0.719 | 1.386 | 1.184 | 6.508 | 0.471 |
| 0.363 | 0.745 | 1.435 | 1.256 | 7.092 | 0.629 |
| 0.376 | 0.768 | 1.485 | 1.342 | 7.34 | 0.682 |

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|-------|-------|-------|-------|--------|-------|
| 0.389 | 0.79 | 1.537 | 1.432 | 8.137 | 0.741 |
| 0.402 | 0.8 | 1.59 | 1.557 | 9.336 | 0.52 |
| 0.416 | 0.814 | 1.618 | 1.613 | 10.173 | 0.275 |
| 0.431 | 0.524 | 1.675 | 1.741 | 10.712 | 0.187 |
| 0.446 | 0.829 | 1.704 | 1.805 | 11.086 | 0.157 |
| 0.462 | 0.829 | 1.763 | 1.926 | 11.474 | 0.136 |
| 0.478 | 0.829 | 1.794 | 1.983 | 12.503 | 0.109 |
| 0.494 | 0.829 | 1.856 | 2.132 | 13.625 | 0.1 |
| 0.512 | 0.829 | 1.921 | 2.303 | 15.104 | 0.092 |
| 0.53 | 0.824 | 1.988 | 2.5 | 16.179 | 0.087 |
| 0.548 | 0.814 | 2.023 | 2.591 | 17.035 | 0.083 |
| 0.567 | 0.805 | 2.130 | 2.779 | 18.247 | 0.078 |
| 0.587 | 0.805 | 2.167 | 2.866 | 19.884 | 0.072 |
| 0.608 | 0.800 | 2.281 | 2.966 | 20.936 | 0.069 |
| 0.629 | 0.79 | 2.361 | 2.9 | 24.021 | 0.061 |
| 0.651 | 0.777 | 2.402 | 2.849 | 25.292 | 0.059 |
| 0.674 | 0.767 | 2.486 | 2.684 | 27.561 | 0.055 |
| 0.697 | 0.754 | 2.529 | 2.607 | 29.522 | 0.051 |
| 0.721 | 0.745 | 2.618 | 2.4 | 30.554 | 0.05 |
| 0.747 | 0.732 | 2.709 | 2.173 | 31.623 | 0.048 |
| 0.773 | 0.723 | 2.804 | 1.912 | 32.728 | 0.047 |
| 0.800 | 0.723 | 2.902 | 1.606 | 33.296 | 0.046 |
| 0.828 | 0.736 | 3.003 | 1.281 | 38.202 | 0.042 |
| 0.857 | 0.749 | 3.108 | 0.966 | 38.864 | 0.041 |
| 0.887 | 0.763 | 3.217 | 0.741 | | |
| 0.918 | 0.772 | 3.33 | 0.606 | | |
| 0.95 | 0.79 | 3.506 | 0.473 | | |
| 0.983 | 0.81 | 3.628 | 0.404 | | |

| Dissociative attachment | | | | | |
|-------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 0.21 | 0.0 | 3.0 | 0.04797 | 13.0 | 0.000363 |
| 0.4 | 0.00115 | 3.1 | 0.03478 | 13.5 | 0.000348 |
| 0.5 | 0.00332 | 3.2 | 0.0363 | 14.0 | 0.000305 |
| 0.6 | 0.00434 | 3.3 | 0.02378 | 14.5 | 0.00022 |
| 0.7 | 0.00482 | 3.4 | 0.01751 | 15.0 | 0.000164 |
| 0.8 | 0.00511 | 3.5 | 0.0132 | 16.0 | 0.000159 |
| 0.9 | 0.00522 | 3.6 | 0.01057 | 17.0 | 0.000165 |
| 1.0 | 0.00539 | 3.7 | 0.00859 | 18.0 | 0.000184 |
| 1.1 | 0.00559 | 3.8 | 0.00728 | 19.0 | 0.000216 |
| 1.2 | 0.00583 | 3.9 | 0.00626 | 20.0 | 0.00025 |
| 1.3 | 0.00623 | 4.0 | 0.00495 | 21.0 | 0.000312 |
| 1.4 | 0.00698 | 4.1 | 0.00461 | 22.0 | 0.000377 |
| 1.5 | 0.00823 | 4.2 | 0.00398 | 23.0 | 0.000426 |
| 1.6 | 0.00982 | 4.3 | 0.00363 | 24.0 | 0.000505 |
| 1.7 | 0.01235 | 4.5 | 0.00323 | 25.0 | 0.000579 |
| 1.8 | 0.01488 | 5.0 | 0.0012 | 26.0 | 0.00066 |
| 1.9 | 0.01659 | 5.1 | 0.00025 | 27.0 | 0.000734 |
| 2.0 | 0.01897 | 6.0 | 0.000176 | 28.0 | 0.000825 |
| 2.1 | 0.02071 | 7.0 | 0.00025 | 29.0 | 0.00091 |

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|-----|---------|------|----------|------|----------|
| 2.2 | 0.02152 | 8.0 | 0.000432 | 30.0 | 0.000998 |
| 2.3 | 0.02143 | 9.0 | 0.0007 | 35.0 | 0.00117 |
| 2.4 | 0.02012 | 10.0 | 0.00114 | 40.0 | 0.00121 |
| 2.5 | 0.01776 | 10.5 | 0.00135 | 50.0 | 0.00122 |
| 2.6 | 0.055 | 11.0 | 0.00138 | 55.0 | 0.0012 |
| 2.7 | 0.06658 | 11.5 | 0.00125 | | |
| 2.8 | 0.08935 | 12.0 | 0.000858 | | |
| 2.9 | 0.06515 | 12.5 | 0.000462 | | |

| Electronic excitation ($\epsilon_{th}=4.0$ eV) | | | | | |
|---|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 4.0 | 0.0 | 6.017 | 1.493 | 42.89 | 0.225 |
| 4.437 | 0.01609 | 8.587 | 1.3097 | 83.0 | 0.111 |
| 4.512 | 0.08514 | 11.258 | 1.01 | 142.7 | 0.554 |
| 4.668 | 0.9 | 16.62 | 0.68 | 271.53 | 0.262 |
| 4.911 | 1.1705 | 24.95 | 0.418 | 421.7 | 0.0164 |

| Electronic excitation ($\epsilon_{th}=8.5$ eV) | | | | | |
|---|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 8.5 | 0.0 | 14.76 | 0.246 | 110.69 | 0.344 |
| 9.19 | 0.011 | 20.36 | 0.473 | 183.95 | 0.2 |
| 9.345 | 0.017 | 33.27 | 0.769 | 436.22 | 0.08 |
| 9.667 | 0.031 | 40.77 | 0.829 | 749.89 | 0.046 |
| 12.46 | 0.123 | 65.49 | 0.626 | 1017 | 0.036 |

| Electronic excitation ($\epsilon_{th}=9.6$ eV) | | | | | |
|---|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 9.6 | 0.0 | 13.56 | 0.491 | 142.7 | 1.69 |
| 10.344 | 0.011 | 17.19 | 1.51 | 338.4 | 0.714 |
| 10.17 | 0.019 | 32.7 | 4.07 | 552.9 | 0.431 |
| 10.52 | 0.052 | 42.17 | 4.47 | 844.25 | 0.302 |
| 11.845 | 0.166 | 77.57 | 3.25 | 1017 | 0.26 |

| Dissociative excitation (83.3 nm) | | | | | |
|-----------------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 44.8 | 0 | 132.88 | 0.000788 | 254.3 | 0.000707 |
| 50.26 | 0.000214 | 142.83 | 0.00082 | 255.3 | 0.000741 |
| 60.21 | 0.000286 | 152.78 | 0.000834 | 256.3 | 0.000727 |
| 71.16 | 0.000351 | 162.74 | 0.000838 | 257.29 | 0.00073 |
| 82.11 | 0.000448 | 173.69 | 0.00083 | 258.28 | 0.000729 |
| 92.06 | 0.000539 | 183.64 | 0.00085 | 259.28 | 0.000707 |
| 102.02 | 0.00062 | 193.6 | 0.000812 | 274.19 | 0.0007095 |
| 110.98 | 0.000665 | 217.5 | 0.000789 | 289.11 | 0.000681 |
| 121.93 | 0.00071 | 231.4 | 0.000768 | 305 | 0.000655 |

| Dissociative excitation (108.5 nm) | | | | | |
|------------------------------------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
| 42.3 | 0.0 | 115.95 | 0.00626 | 214.53 | 0.00691 |
| 53.24 | 0.0012 | 120.93 | 0.00605 | 226.46 | 0.00688 |
| 64.19 | 0.00187 | 125.91 | 0.00669 | 239.39 | 0.0068 |

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|--------|---------|--------|---------|--------|---------|
| 73.15 | 0.00276 | 132.88 | 0.00711 | 251.32 | 0.0063 |
| 84.1 | 0.00371 | 142.83 | 0.00704 | 262.26 | 0.00605 |
| 95.05 | 0.00471 | 150.79 | 0.00747 | 273.2 | 0.0062 |
| 105.0 | 0.00555 | 169.71 | 0.00746 | 284.13 | 0.0058 |
| 106.0 | 0.00558 | 180.66 | 0.0075 | 294.08 | 0.00537 |
| 107.0 | 0.00563 | 192.6 | 0.00726 | 304.02 | 0.00552 |
| 111.97 | 0.00581 | 202.6 | 0.00703 | 305.01 | 0.0056 |

Dissociative excitation (120.1 nm)

| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| 15.6 | 0.0 | 72.16 | 0.01902 | 182.65 | 0.01853 |
| 16.41 | 0.00014 | 80.12 | 0.02038 | 194.59 | 0.01773 |
| 19.4 | 0.000625 | 88.08 | 0.02105 | 204.59 | 0.01726 |
| 20.4 | 0.000826 | 96.05 | 0.02136 | 214.53 | 0.01673 |
| 26.37 | 0.00456 | 104 | 0.02226 | 244.36 | 0.01521 |
| 32.34 | 0.0086 | 113.96 | 0.02195 | 263.25 | 0.01428 |
| 38.31 | 0.00894 | 125.91 | 0.02155 | 275.18 | 0.01383 |
| 47.27 | 0.0115 | 137.85 | 0.02089 | 289.11 | 0.01349 |
| 48.27 | 0.01225 | 149.8 | 0.02034 | 299.05 | 0.01305 |
| 55.23 | 0.01498 | 160.75 | 0.01978 | 305 | 0.01287 |
| 64.19 | 0.01749 | 170.7 | 0.01894 | | |

Dissociative excitation (130.4 nm)

| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| 14.1 | 0.0 | 98.04 | 0.00506 | 201.61 | 0.00412 |
| 14.42 | 0.000225 | 105 | 0.00522 | 209.56 | 0.00394 |
| 15.42 | 0.00042 | 113.96 | 0.00508 | 216.52 | 0.00389 |
| 17.41 | 0.000578 | 121.93 | 0.00511 | 232.43 | 0.00377 |
| 21.39 | 0.00117 | 129.89 | 0.00495 | 245.36 | 0.00358 |
| 30.35 | 0.00214 | 140.84 | 0.00482 | 257.29 | 0.00356 |
| 42.29 | 0.00275 | 151.79 | 0.00474 | 283.14 | 0.00323 |
| 54.24 | 0.0039 | 162.74 | 0.00458 | 297.06 | 0.00316 |
| 65.19 | 0.00439 | 173.69 | 0.00434 | 302.03 | 0.00308 |
| 76.14 | 0.00487 | 183.64 | 0.00426 | 305 | 0.00307 |
| 87.09 | 0.00505 | 193.6 | 0.00412 | | |

Ionization

| E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) | E (eV) | Q (10^{-16}cm^2) |
|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
| 12.894 | 0.0 | 85.4 | 2.43 | 300.0 | 1.341 |
| 13.5 | 0.13 | 90.5 | 2.43 | 350.0 | 1.180 |
| 14.8 | 0.26 | 95.8 | 2.43 | 400.0 | 1.056 |
| 16.1 | 0.4 | 99.8 | 2.43 | 450.0 | 0.958 |
| 17.5 | 0.53 | 105.6 | 2.43 | 500.0 | 0.877 |
| 18.8 | 0.67 | 110.0 | 2.43 | 600.0 | 0.752 |
| 20.0 | 0.8 | 115.3 | 2.44 | 700.0 | 0.66 |
| 22.6 | 1.05 | 120.0 | 2.42 | 800.0 | 0.589 |
| 25.3 | 1.25 | 125.4 | 2.4 | 900.0 | 0.533 |
| 28.0 | 1.39 | 130.7 | 2.4 | 1000 | 0.487 |
| 30.6 | 1.49 | 135.6 | 2.37 | 1200 | 0.417 |
| 35.8 | 1.68 | 140.9 | 2.34 | 1500 | 0.344 |

| | | | | | |
|--------|------|-------|-------|------|-------|
| 40.900 | 1.85 | 145.2 | 2.3 | 1700 | 0.309 |
| 45.0 | 1.95 | 149.4 | 2.28 | 2000 | 0.268 |
| 50.2 | 2.05 | 154.3 | 2.23 | 2200 | 0.247 |
| 55.3 | 2.13 | 159.9 | 2.2 | 2500 | 0.221 |
| 60.6 | 2.22 | 165.9 | 2.17 | 2700 | 0.206 |
| 65.9 | 2.32 | 170.3 | 2.13 | 3000 | 0.188 |
| 69.9 | 2.36 | 176.8 | 2.08 | 3500 | 0.164 |
| 74.8 | 2.40 | 200 | 1.868 | 4000 | 0.146 |
| 80.2 | 2.42 | 250.0 | 1.558 | | |

Electron transport coefficients for N₂O and N₂O-N₂ mixtures (present paper)

| pure N ₂ O | | | | | |
|-----------------------|---|--|----------|---|--|
| E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) | E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) |
| 0.6 | 0.365 | -0.143 | 30 | 8.63 | -5.43 |
| 0.7 | 0.442 | -0.102 | 33 | 8.78 | -5.86 |
| 0.8 | 0.503 | -0.0947 | 36 | 8.77 | -6.5 |
| 0.9 | 0.575 | -0.0852 | 40 | 8.87 | -7.03 |
| 1 | 0.659 | -0.0818 | 45 | 9.11 | -7.82 |
| 1.2 | 0.807 | -0.0717 | 50 | 9.18 | -8.61 |
| 1.4 | 0.954 | -0.0673 | 55 | 9.48 | -9.51 |
| 1.6 | 1.12 | -0.0597 | 60 | 9.62 | -9.88 |
| 1.8 | 1.29 | -0.0584 | 65 | 9.99 | -10.3 |
| 2 | 1.45 | -0.0503 | 70 | 10.2 | -10.7 |
| 2.3 | 1.72 | -0.0501 | 80 | 11 | -10.9 |
| 2.6 | 1.99 | -0.0533 | 90 | 12 | -10.6 |
| 3 | 2.34 | -0.0486 | 100 | 12.6 | -10.1 |
| 3.3 | 2.6 | -0.0549 | 120 | 13.9 | -8.55 |
| 3.6 | 2.87 | -0.0595 | 140 | 16 | -6.53 |
| 4 | 3.26 | -0.0556 | 160 | 17.6 | -4.62 |
| 4.5 | 3.68 | -0.0673 | 180 | 19.2 | -2.86 |
| 5 | 4.12 | -0.0718 | 190 | 19.8 | -1.53 |
| 5.5 | 4.57 | -0.0923 | 200 | 20.7 | 0.508 |
| 6 | 4.98 | -0.123 | 210 | 21.2 | 1.74 |
| 6.5 | 5.37 | -0.184 | 220 | 21.8 | 2.82 |
| 7 | 5.7 | -0.226 | 230 | 22.5 | 4.23 |
| 8 | 6.31 | -0.363 | 240 | 23.1 | 5.48 |
| 9 | 6.8 | -0.541 | 250 | 23.6 | 6.57 |
| 10 | 7.19 | -0.643 | 260 | 24.6 | 8.77 |
| 12 | 7.71 | -1.5 | 280 | 25.4 | 10.8 |
| 14 | 8.05 | -2.04 | 300 | 27.2 | 14.9 |
| 16 | 8.26 | -2.48 | 320 | 28.4 | 17.6 |
| 18 | 8.34 | -3.02 | 330 | 29.5 | 20.7 |
| 20 | 8.43 | -3.53 | 360 | 32.4 | 25.8 |
| 23 | 8.55 | -4.03 | 400 | 34.4 | 34.2 |
| 26 | 8.58 | -4.63 | | | |

| 80% N ₂ O in N ₂ | | | | | |
|--|---|--|----------|---|--|
| E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) | E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) |
| 0.5 | 0.362 | -0.0999 | 16 | 7.14 | -2.51 |
| 0.55 | 0.407 | -0.0986 | 18 | 7.24 | -2.9 |

| | | | | | |
|------|-------|---------|-----|------|-------|
| 0.6 | 0.435 | -0.0863 | 20 | 7.34 | -3.33 |
| 0.65 | 0.475 | -0.0827 | 23 | 7.49 | -3.94 |
| 0.7 | 0.508 | -0.0787 | 26 | 7.66 | -4.45 |
| 0.8 | 0.583 | -0.0643 | 30 | 7.79 | -5 |
| 0.9 | 0.663 | -0.0601 | 33 | 7.84 | -5.54 |
| 1 | 0.741 | -0.062 | 36 | 7.94 | -5.83 |
| 1.2 | 0.911 | -0.0588 | 40 | 8.06 | -6.41 |
| 1.4 | 1.07 | -0.0513 | 45 | 8.35 | -6.96 |
| 1.6 | 1.25 | -0.0451 | 50 | 8.75 | -7.42 |
| 1.8 | 1.41 | -0.0395 | 55 | 8.82 | -7.84 |
| 2 | 1.59 | -0.037 | 60 | 8.98 | -8.16 |
| 2.3 | 1.85 | -0.0389 | 65 | 9.37 | -9.08 |
| 2.6 | 2.13 | -0.0546 | 70 | 9.69 | -9.21 |
| 3 | 2.48 | -0.0607 | 80 | 10.4 | -9.44 |
| 3.3 | 2.72 | -0.0676 | 90 | 11.2 | -9.13 |
| 3.6 | 2.99 | -0.0686 | 100 | 11.9 | -8.8 |
| 4 | 3.32 | -0.0879 | 120 | 13.7 | -7.5 |
| 4.5 | 3.68 | -0.108 | 140 | 15.2 | -6.52 |
| 5 | 4.05 | -0.142 | 160 | 16.9 | -5.1 |
| 5.5 | 4.37 | -0.177 | 180 | 18.6 | -2.81 |
| 6 | 4.72 | -0.262 | 200 | 20.1 | -1.17 |
| 6.5 | 4.96 | -0.308 | 230 | 22.1 | 2.17 |
| 7 | 5.21 | -0.382 | 260 | 23.9 | 5.89 |
| 8 | 5.67 | -0.602 | 300 | 26.3 | 11.1 |
| 9 | 6.08 | -0.783 | 330 | 27.9 | 15 |
| 10 | 6.29 | -1.03 | 360 | 29.4 | 20.9 |
| 12 | 6.68 | -1.51 | 400 | 31.8 | 26.3 |
| 14 | 6.91 | -2.02 | 450 | 33.7 | 32.7 |

60% N₂O in N₂

| E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) | E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) |
|----------|---|--|----------|---|--|
| 0.45 | 0.385 | -0.081 | 16 | 6.02 | -2.5 |
| 0.5 | 0.425 | -0.0969 | 18 | 6.17 | -2.86 |
| 0.55 | 0.463 | -0.0795 | 20 | 6.32 | -3.31 |
| 0.6 | 0.511 | -0.0765 | 23 | 6.34 | -3.77 |
| 0.65 | 0.55 | -0.071 | 26 | 6.58 | -4.07 |
| 0.7 | 0.595 | -0.0651 | 30 | 6.83 | -4.67 |
| 0.8 | 0.681 | -0.0555 | 33 | 6.89 | -4.95 |
| 0.9 | 0.77 | -0.0465 | 36 | 7 | -5.53 |
| 1 | 0.865 | -0.0388 | 40 | 7.22 | -5.98 |
| 1.2 | 1.04 | -0.0445 | 45 | 7.46 | -6.19 |
| 1.4 | 1.22 | -0.0368 | 50 | 7.88 | -6.65 |

| | | | | | |
|-----|------|---------|-----|------|-------|
| 1.6 | 1.39 | -0.0395 | 55 | 8.16 | -6.86 |
| 1.8 | 1.57 | -0.0324 | 60 | 8.4 | -7.38 |
| 2 | 1.74 | -0.0317 | 65 | 8.75 | -7.59 |
| 2.3 | 1.99 | -0.0301 | 70 | 9.03 | -7.77 |
| 2.6 | 2.23 | -0.05 | 80 | 9.81 | -7.65 |
| 3 | 2.54 | -0.0573 | 90 | 10.7 | -7.55 |
| 3.3 | 2.76 | -0.0643 | 100 | 11.6 | -6.97 |
| 3.6 | 2.97 | -0.0816 | 120 | 13.2 | -5.96 |
| 4 | 3.24 | -0.0921 | 140 | 15.1 | -4.54 |
| 4.5 | 3.56 | -0.124 | 160 | 16.8 | -3.01 |
| 5 | 3.81 | -0.178 | 180 | 18.7 | -1.65 |
| 5.5 | 4.08 | -0.255 | 200 | 20.2 | 0.304 |
| 6 | 4.31 | -0.293 | 230 | 22 | 3.59 |
| 8 | 5 | -0.656 | 260 | 23.9 | 7.07 |
| 10 | 5.4 | -1.07 | 300 | 26.4 | 12.2 |
| 12 | 5.68 | -1.54 | 330 | 28.2 | 17.4 |
| 14 | 5.88 | -2.07 | 360 | 30 | 21.5 |

40% N₂O in N₂

| E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) | E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) |
|----------|---|--|----------|---|--|
| 0.8 | 0.823 | -0.0895 | 18 | 5.15 | -3.11 |
| 0.9 | 0.918 | -0.0788 | 20 | 5.3 | -3.32 |
| 1 | 1 | -0.0778 | 23 | 5.36 | -3.73 |
| 1.2 | 1.17 | -0.0674 | 26 | 5.61 | -4.1 |
| 1.4 | 1.34 | -0.0578 | 30 | 5.92 | -4.25 |
| 1.6 | 1.51 | -0.0522 | 33 | 6.03 | -4.37 |
| 1.8 | 1.66 | -0.0488 | 36 | 6.29 | -4.54 |
| 2 | 1.8 | -0.05 | 40 | 6.52 | -4.87 |
| 2.3 | 2.03 | -0.0515 | 45 | 6.95 | -4.94 |
| 2.6 | 2.23 | -0.0606 | 50 | 7.24 | -5.35 |
| 3 | 2.48 | -0.071 | 55 | 7.49 | -5.51 |
| 3.3 | 2.68 | -0.0849 | 60 | 7.94 | -5.56 |
| 3.6 | 2.83 | -0.0979 | 65 | 8.28 | -5.54 |
| 4 | 3.01 | -0.122 | 70 | 8.75 | -5.66 |
| 4.5 | 3.26 | -0.172 | 80 | 9.5 | -5.5 |
| 5 | 3.47 | -0.219 | 90 | 10.4 | -5.37 |
| 5.5 | 3.64 | -0.253 | 100 | 11.2 | -4.92 |
| 6 | 3.76 | -0.387 | 120 | 13.3 | -3.87 |
| 6.5 | 3.85 | -0.512 | 140 | 15.1 | -2.77 |
| 7 | 4.05 | -0.597 | 160 | 17.1 | -1.33 |
| 8 | 4.18 | -0.846 | 180 | 18.8 | 0.0752 |
| 9 | 4.32 | -1.15 | 200 | 20.3 | 1.89 |

| | | | | | |
|----|------|-------|-----|------|------|
| 10 | 4.47 | -1.42 | 230 | 22.4 | 5 |
| 12 | 4.66 | -1.83 | 260 | 24.5 | 8.58 |
| 14 | 4.76 | -2.41 | 300 | 27.3 | 14.3 |
| 16 | 4.96 | -2.78 | 320 | 28.6 | 17.5 |

20% N₂O in N₂

| E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) | E/N (Td) | W (10 ⁶ cms ⁻¹) | $\frac{\alpha - 1}{N}$ (10 ⁻¹⁸ cm ²) |
|----------|---|--|----------|---|--|
| 0.7 | 0.775 | -0.158 | 23 | 4.41 | -2.67 |
| 0.8 | 0.855 | -0.21 | 26 | 4.65 | -2.9 |
| 0.9 | 0.944 | -0.155 | 30 | 4.97 | -2.95 |
| 1 | 1.02 | -0.137 | 33 | 5.22 | -2.91 |
| 1.2 | 1.19 | -0.0979 | 36 | 5.45 | -3.04 |
| 1.4 | 1.33 | -0.136 | 40 | 5.74 | -3.04 |
| 1.6 | 1.47 | -0.0917 | 45 | 6.09 | -3.13 |
| 1.8 | 1.59 | -0.0709 | 50 | 6.45 | -3.22 |
| 2 | 1.71 | -0.108 | 55 | 6.88 | -3.23 |
| 2.3 | 1.87 | -0.0987 | 60 | 7.22 | -3.25 |
| 2.6 | 2 | -0.0945 | 65 | 7.61 | -3.25 |
| 3 | 2.16 | -0.114 | 70 | 8.08 | -3.21 |
| 3.3 | 2.28 | -0.152 | 80 | 8.9 | -3.05 |
| 3.6 | 2.38 | -0.181 | 90 | 9.8 | -2.96 |
| 4 | 2.5 | -0.252 | 100 | 10.6 | -2.74 |
| 4.5 | 2.63 | -0.306 | 120 | 12.7 | -2.09 |
| 5 | 2.74 | -0.37 | 140 | 14.6 | -1.31 |
| 5.5 | 2.81 | -0.489 | 160 | 16.6 | -0.309 |
| 6 | 2.91 | -0.584 | 180 | 18.2 | 0.868 |
| 7 | 2.99 | -0.832 | 200 | 19.8 | 2.16 |
| 9 | 3.24 | -1.34 | 230 | 22.1 | 4.93 |
| 10 | 3.31 | -1.53 | 260 | 24.4 | 8.06 |
| 12 | 3.48 | -1.91 | 280 | 25.7 | 9.95 |
| 14 | 3.64 | -2.18 | 300 | 27.3 | 13.5 |
| 16 | 3.87 | -2.45 | 330 | 29.2 | 17.5 |
| 18 | 3.97 | -2.64 | 360 | 31 | 22.2 |
| 20 | 4.21 | -2.76 | | | |