**Supplementary Materials**

**Supplementary Table 1: Total data table of included and excluded patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Exclusion criteria\*** | **No. records filtered** | **No. of records left** | **No. of patients left** |
| Original data |  | 176,788 | 10,755 |
| Nerve = null | 129 | 176,659 | 10,697 |
| Age = null | 719 | 175,940 | 10,651 |
| Height > 220cm | 46 | 175,894 | 10,648 |
| Amplitude & Velocity & Latency are null | 75 | 175,819 | 10,648 |
| Distance < 0cm | 1 | 175,818 | 10,648 |
| Velocity > 1000m/s | 23 | 175,795 | 10,648 |
| Amplitude > 150μV for sensory and mV for motor | 20 | 175,775 | 10,648 |
| Normal and abnormal studies in the same visit (kept abnormal) | 39 | 175,736 | 10,648 |
| Duplicate rows\*\* | 1,454 | 174,282 | 10,648 |
| One visit per patient (the last one) | 24,401 | 149,881 | 10,648 |

\*To determine the limits of outliers we created a histogram for each variable and examined the regions of the histogram corresponding to the empty or sparse bins and identified values that fell outside of the established outlier criteria. In addition, for each variable, we also considered its physiological range. For example, velocity was defined as below 1000m/s and the distance could not be less than 0.

**\*\***A row was defined as a duplicate if the following variables had the same values: ID, Visit\_ID, Visit\_Date, Sex, Age, Height, Studytype, Side, Nerve, Site, Muscle, Segments, Latency, Amplitude, Distance, Velocity. The reasons for duplicate records were technical. For example, several images for the same test had several records or several summaries, which also led to normal and abnormal records in the same visit. 1454 records of 108 patients had duplicate rows, and in most cases were abnormal studies.

**Supplementary Table 2: Sample size for Nerve, Sex, and Age group**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve** | **Gender** | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** | **70** | **75** | **80** | **85** | **90** |
| Median - APB | F | 2 | 7 | 11 | 40 | 194 | 141 | 132 | 154 | 155 | 207 | 176 | 157 | 155 | 119 | 98 | 91 | 49 | 18 | 4 |
| M | 2 | 16 | 17 | 35 | 221 | 99 | 100 | 121 | 91 | 130 | 101 | 70 | 82 | 57 | 57 | 31 | 21 | 12 | 1 |
| Median - Digit II (Antidromic) | F | 2 | 7 | 11 | 41 | 195 | 140 | 133 | 154 | 153 | 204 | 176 | 157 | 155 | 118 | 96 | 89 | 49 | 18 | 5 |
| M | NA | 17 | 17 | 36 | 224 | 99 | 100 | 120 | 91 | 129 | 101 | 70 | 82 | 56 | 56 | 29 | 21 | 12 | 1 |
| Peroneal - EDB | F | 2 | 7 | 18 | 39 | 179 | 112 | 113 | 130 | 134 | 197 | 184 | 167 | 184 | 163 | 167 | 125 | 74 | 21 | 7 |
| M | 4 | 19 | 28 | 37 | 217 | 115 | 92 | 112 | 113 | 137 | 116 | 94 | 121 | 123 | 122 | 61 | 36 | 21 | 3 |
| Radial - Anatomical snuff box (Forearm) | F | NA | 1 | 6 | 35 | 128 | 104 | 88 | 114 | 97 | 139 | 116 | 100 | 98 | 73 | 66 | 56 | 28 | 10 | 4 |
| M | 1 | 5 | 11 | 26 | 178 | 74 | 73 | 91 | 71 | 105 | 79 | 50 | 65 | 41 | 37 | 20 | 8 | 5 | NA |
| Superficial peroneal - Ankle | F | 3 | 5 | 17 | 39 | 174 | 105 | 104 | 121 | 119 | 174 | 169 | 144 | 163 | 142 | 151 | 106 | 59 | 18 | 5 |
| M | 3 | 18 | 26 | 34 | 207 | 110 | 84 | 96 | 104 | 131 | 109 | 89 | 111 | 110 | 109 | 54 | 29 | 20 | 2 |
| Sural - Ankle (Calf) | F | 2 | 9 | 20 | 39 | 187 | 116 | 123 | 135 | 140 | 211 | 194 | 180 | 197 | 172 | 173 | 132 | 77 | 24 | 7 |
| M | 3 | 21 | 30 | 40 | 222 | 121 | 97 | 116 | 115 | 140 | 123 | 97 | 125 | 122 | 128 | 62 | 44 | 22 | 3 |
| Tibial - AH | F | 3 | 8 | 18 | 41 | 180 | 114 | 116 | 129 | 130 | 189 | 175 | 161 | 184 | 156 | 162 | 122 | 62 | 22 | 6 |
| M | 4 | 20 | 30 | 37 | 217 | 116 | 87 | 106 | 108 | 136 | 117 | 95 | 117 | 114 | 117 | 58 | 38 | 23 | 3 |
| Ulnar - ADM | F | NA | 2 | 8 | 37 | 177 | 126 | 115 | 139 | 135 | 169 | 143 | 123 | 116 | 86 | 71 | 62 | 28 | 12 | 3 |
| M | 2 | 10 | 14 | 32 | 212 | 88 | 84 | 100 | 78 | 119 | 88 | 59 | 66 | 42 | 33 | 22 | 7 | 5 | NA |
| Ulnar - Digit V (Antidromic) | F | NA | 2 | 8 | 38 | 178 | 126 | 116 | 139 | 134 | 169 | 143 | 125 | 113 | 87 | 72 | 62 | 30 | 12 | 3 |
| M | 1 | 11 | 14 | 32 | 215 | 89 | 84 | 102 | 78 | 119 | 86 | 56 | 66 | 41 | 33 | 20 | 7 | 5 | NA |

These data summarize the sample size shown in Figure 2. Age groups were created by rounding the age to the nearest five years. Age groups 0 and 90 were removed from the figures due to the low number of samples.

**Supplementary Table 3: Sample size for Nerve, Sex, and Age group without cases of null velocity**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve** | **Gender** | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** | **70** | **75** | **80** | **85** | **90** |
| Median - APB | F | 2 | 6 | 11 | 40 | 192 | 141 | 131 | 154 | 154 | 205 | 176 | 157 | 153 | 119 | 97 | 91 | 48 | 18 | 4 |
| M | 2 | 16 | 16 | 35 | 219 | 99 | 100 | 120 | 91 | 129 | 101 | 70 | 80 | 57 | 57 | 31 | 21 | 12 | 1 |
| Median - Digit II (Antidromic) | F | 2 | 7 | 11 | 41 | 195 | 140 | 133 | 154 | 153 | 204 | 176 | 157 | 155 | 118 | 96 | 89 | 49 | 18 | 5 |
| M | NA | 17 | 17 | 36 | 224 | 99 | 100 | 120 | 91 | 129 | 101 | 70 | 82 | 56 | 56 | 29 | 21 | 12 | 1 |
| Peroneal - EDB | F | 2 | 7 | 18 | 39 | 179 | 112 | 113 | 130 | 134 | 196 | 184 | 167 | 184 | 161 | 167 | 125 | 74 | 21 | 7 |
| M | 4 | 19 | 28 | 37 | 217 | 115 | 92 | 112 | 113 | 137 | 116 | 94 | 121 | 123 | 122 | 61 | 36 | 20 | 3 |
| Radial - Anatomical snuff box (Forearm) | F | NA | 1 | 6 | 35 | 128 | 104 | 88 | 114 | 97 | 139 | 116 | 100 | 98 | 73 | 65 | 55 | 28 | 10 | 4 |
| M | 1 | 5 | 11 | 26 | 178 | 74 | 73 | 91 | 71 | 105 | 79 | 50 | 65 | 41 | 37 | 20 | 8 | 5 | NA |
| Superficial peroneal - Ankle | F | 3 | 5 | 17 | 39 | 174 | 105 | 104 | 121 | 119 | 174 | 169 | 144 | 163 | 142 | 151 | 106 | 59 | 17 | 5 |
| M | 3 | 18 | 26 | 34 | 207 | 110 | 84 | 96 | 104 | 131 | 109 | 89 | 111 | 110 | 109 | 54 | 29 | 20 | 2 |
| Sural - Ankle (Calf) | F | 2 | 9 | 20 | 39 | 187 | 116 | 123 | 135 | 140 | 211 | 194 | 179 | 196 | 170 | 172 | 131 | 77 | 24 | 7 |
| M | 3 | 21 | 30 | 40 | 222 | 121 | 97 | 115 | 114 | 140 | 123 | 97 | 124 | 122 | 127 | 62 | 44 | 22 | 2 |
| Tibial - AH | F | 3 | 8 | 18 | 41 | 180 | 114 | 116 | 127 | 129 | 189 | 174 | 160 | 184 | 156 | 161 | 121 | 61 | 22 | 6 |
| M | 4 | 20 | 30 | 37 | 217 | 115 | 87 | 106 | 108 | 136 | 117 | 95 | 117 | 114 | 117 | 58 | 38 | 22 | 3 |
| Ulnar - ADM | F | NA | 1 | 8 | 37 | 177 | 126 | 115 | 138 | 135 | 169 | 143 | 122 | 114 | 86 | 70 | 62 | 28 | 12 | 3 |
| M | 2 | 9 | 14 | 32 | 212 | 88 | 84 | 100 | 78 | 119 | 88 | 59 | 66 | 42 | 33 | 22 | 7 | 5 | NA |
| Ulnar - Digit V (Antidromic) | F | NA | 2 | 8 | 37 | 178 | 126 | 114 | 138 | 134 | 168 | 142 | 124 | 113 | 86 | 72 | 62 | 30 | 12 | 3 |
| M | 1 | 11 | 14 | 32 | 215 | 89 | 84 | 101 | 78 | 118 | 86 | 56 | 66 | 41 | 33 | 20 | 7 | 5 | NA |

These data summarize the sample size shown in Figure 3. Age groups were created by rounding the age to the nearest five years. Age categories 0 and 90 were removed from the figures due to the low number of samples.

**Supplementary Table 4: Sample size for Nerve, Sex, and Age group for distal sites**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve** | **Gender** | **0** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** | **50** | **55** | **60** | **65** | **70** | **75** | **80** | **85** | **90** |
| Median - APB | F | 2 | 7 | 11 | 40 | 194 | 141 | 132 | 154 | 155 | 207 | 176 | 157 | 155 | 119 | 98 | 91 | 49 | 18 | 4 |
| M | 2 | 16 | 17 | 35 | 221 | 99 | 100 | 121 | 91 | 130 | 101 | 70 | 82 | 57 | 57 | 31 | 21 | 12 | 1 |
| Median - Digit II (Antidromic) | F | 2 | 7 | 11 | 41 | 195 | 140 | 133 | 154 | 153 | 204 | 176 | 157 | 155 | 118 | 96 | 89 | 49 | 18 | 5 |
| M | NA | 17 | 17 | 36 | 224 | 99 | 100 | 120 | 91 | 129 | 101 | 70 | 82 | 56 | 56 | 29 | 21 | 12 | 1 |
| Peroneal - EDB | F | 2 | 7 | 18 | 39 | 179 | 112 | 113 | 130 | 134 | 197 | 184 | 167 | 183 | 163 | 167 | 125 | 74 | 21 | 7 |
| M | 4 | 19 | 28 | 37 | 217 | 115 | 92 | 112 | 113 | 137 | 116 | 94 | 121 | 123 | 122 | 61 | 36 | 21 | 3 |
| Radial - Anatomical snuff box (Forearm) | F | NA | 1 | 6 | 35 | 128 | 104 | 88 | 114 | 97 | 139 | 116 | 100 | 98 | 73 | 66 | 56 | 28 | 10 | 4 |
| M | 1 | 5 | 11 | 26 | 178 | 74 | 73 | 91 | 71 | 105 | 79 | 50 | 65 | 41 | 37 | 20 | 8 | 5 | NA |
| Superficial peroneal - Ankle | F | 3 | 5 | 17 | 39 | 174 | 105 | 104 | 121 | 119 | 174 | 169 | 144 | 163 | 142 | 151 | 106 | 59 | 18 | 5 |
| M | 3 | 18 | 26 | 34 | 207 | 110 | 84 | 96 | 104 | 131 | 109 | 89 | 111 | 110 | 109 | 54 | 29 | 20 | 2 |
| Sural - Ankle (Calf) | F | 2 | 9 | 20 | 39 | 187 | 116 | 123 | 135 | 140 | 211 | 194 | 180 | 197 | 172 | 173 | 132 | 77 | 24 | 7 |
| M | 3 | 21 | 30 | 40 | 222 | 121 | 97 | 116 | 115 | 140 | 123 | 97 | 125 | 122 | 128 | 62 | 44 | 22 | 3 |
| Tibial - AH | F | 3 | 8 | 18 | 41 | 180 | 114 | 116 | 129 | 130 | 189 | 175 | 161 | 184 | 156 | 162 | 122 | 62 | 22 | 6 |
| M | 4 | 20 | 30 | 37 | 217 | 116 | 87 | 106 | 108 | 136 | 117 | 95 | 117 | 114 | 117 | 58 | 38 | 23 | 3 |
| Ulnar - ADM | F | NA | 2 | 8 | 37 | 177 | 126 | 115 | 139 | 135 | 169 | 143 | 123 | 116 | 86 | 71 | 62 | 28 | 12 | 3 |
| M | 2 | 10 | 14 | 32 | 212 | 88 | 84 | 100 | 78 | 119 | 88 | 59 | 66 | 42 | 33 | 22 | 7 | 5 | NA |
| Ulnar - Digit V (Antidromic) | F | NA | 2 | 8 | 38 | 178 | 126 | 116 | 139 | 134 | 169 | 143 | 125 | 113 | 87 | 72 | 62 | 30 | 12 | 3 |
| M | 1 | 11 | 14 | 32 | 215 | 89 | 84 | 102 | 78 | 119 | 86 | 56 | 66 | 41 | 33 | 20 | 7 | 5 | NA |

These data summarize the sample size shown in Figure 4. Age groups were created by rounding the age to the nearest five years. Age categories 0 and 90 were removed from the figures due to the low number of samples.

Sites included for each nerve: Peroneal – EDB: ankle; Median – APB: wrist; Ulnar – ADM: wrist; Tibial – AH: ankle; Sural – Ankle: calf; Ulnar - Digit V: wrist; Median - Digit II: wrist; Superficial peroneal – Ankle: lat leg; Radial - Antidromic: forearm.

**Supplementary Table 5: Sample size for Nerve, Sex and Age category**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve** | **Gender** | **0\_10** | **10\_15** | **15\_20** | **20\_25** | **25\_30** | **30\_35** | **35\_40** | **40\_45** | **45\_50** | **50\_55** | **55\_60** | **60\_65** | **65\_70** | **70\_75** | **75\_80** | **80\_85** | **85\_90** |
| Median - APB | F | 13 | 19 | 113 | 184 | 140 | 140 | 149 | 173 | 201 | 166 | 158 | 133 | 121 | 85 | 71 | 35 | 8 |
| M | 25 | 20 | 121 | 183 | 81 | 121 | 109 | 111 | 111 | 91 | 71 | 66 | 60 | 49 | 22 | 16 | 7 |
| Median - Digit II (Antidromic) | F | 13 | 19 | 116 | 183 | 140 | 141 | 148 | 169 | 200 | 166 | 158 | 132 | 120 | 83 | 70 | 35 | 9 |
| M | 24 | 20 | 124 | 184 | 81 | 120 | 109 | 110 | 111 | 91 | 71 | 66 | 58 | 48 | 21 | 16 | 7 |
| Peroneal - EDB | F | 20 | 22 | 106 | 155 | 114 | 124 | 130 | 163 | 195 | 164 | 181 | 169 | 173 | 144 | 101 | 50 | 10 |
| M | 37 | 26 | 115 | 188 | 102 | 103 | 113 | 125 | 117 | 108 | 108 | 119 | 131 | 95 | 46 | 27 | 11 |
| Radial - Anatomical snuff box (Forearm) | F | 5 | 13 | 80 | 131 | 94 | 100 | 97 | 121 | 129 | 107 | 102 | 85 | 73 | 58 | 44 | 17 | 6 |
| M | 9 | 15 | 94 | 147 | 61 | 88 | 85 | 88 | 87 | 71 | 55 | 48 | 44 | 25 | 13 | 7 | 3 |
| Superficial peroneal - Ankle | F | 19 | 21 | 102 | 151 | 108 | 111 | 120 | 147 | 171 | 149 | 155 | 153 | 150 | 130 | 83 | 38 | 9 |
| M | 34 | 25 | 109 | 178 | 97 | 88 | 103 | 117 | 110 | 103 | 100 | 109 | 117 | 82 | 42 | 23 | 9 |
| Sural - Ankle (Calf) | F | 22 | 25 | 106 | 164 | 120 | 131 | 136 | 171 | 210 | 177 | 193 | 180 | 184 | 147 | 106 | 53 | 11 |
| M | 39 | 30 | 116 | 195 | 106 | 109 | 117 | 125 | 122 | 114 | 108 | 124 | 131 | 102 | 51 | 31 | 11 |
| Tibial - AH | F | 22 | 23 | 103 | 160 | 119 | 120 | 129 | 158 | 190 | 156 | 175 | 168 | 168 | 142 | 91 | 42 | 10 |
| M | 39 | 30 | 113 | 186 | 103 | 95 | 108 | 121 | 117 | 112 | 102 | 116 | 122 | 91 | 48 | 30 | 10 |
| Ulnar - ADM | F | 6 | 15 | 106 | 165 | 127 | 120 | 132 | 149 | 160 | 132 | 123 | 100 | 85 | 59 | 47 | 19 | 6 |
| M | 17 | 17 | 119 | 169 | 71 | 97 | 94 | 101 | 99 | 79 | 59 | 51 | 39 | 27 | 13 | 6 | 3 |
| Ulnar - Digit V (Antidromic) | F | 6 | 15 | 108 | 165 | 128 | 120 | 131 | 150 | 158 | 135 | 122 | 99 | 84 | 61 | 48 | 20 | 6 |
| M | 17 | 17 | 121 | 170 | 71 | 99 | 95 | 101 | 99 | 76 | 57 | 50 | 39 | 27 | 11 | 6 | 3 |

These data summarize the sample size that was used in the statistical analysis (Figure 5).

**Supplementary Table 6: Nerve tested by the sex of normal study cohort in pediatrics (age < 18)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve name** | **Type** | **N** | | **Mean (±SD) Amplitude** | | **Estimate Males** | **P- value** | **Partial  η2** | **Effect  size magnitude** |
| **Males** | **Females** | **Males** | **Females** |
| Median - APB (mV) | Motor | 75 | 64 | 9.76 (±3.14) | 9.75 (±3.14) | 0.39 | 0.440 | <0.01 | negligible |
| Peroneal - EDB (mV) | Motor | 96 | 70 | 5.1 (±1.84) | 5.12 (±1.84) | 0.24 | 0.392 | <0.01 | negligible |
| Tibial - AH (mV) | Motor | 99 | 74 | 11.08 (±4.26) | 11.24 (±4.26) | -0.12 | 0.867 | <0.01 | negligible |
| Ulnar - ADM (mV) | Motor | 63 | 51 | 7.53 (±2.13) | 8.36 (±2.13) | -0.63 | 0.155 | 0.018 | small |
| **Median – Digit II (Antidromic, μV)** | Sensory | 75 | 65 | 54.13 (±20.25) | 66.98 (±20.25) | -11.9 | 0.001 | 0.083 | **moderate** |
| Radial - Anatomical snuff box (Forearm, μV) | Sensory | 46 | 45 | 38.39 (±16.52) | 45 (±16.52) | -4.71 | 0.163 | 0.022 | small |
| Superficial peroneal – Ankle (μV) | Sensory | 88 | 68 | 15.84 (±7.42) | 16.56 (±7.42) | -0.6 | 0.611 | <0.01 | negligible |
| Sural - Ankle (Calf, μV) | Sensory | 102 | 74 | 24.52 (±11.41) | 28.03 (±11.41) | -3.22 | 0.035 | 0.025 | small |
| Ulnar - Digit V (Antidromic, μV) | Sensory | 63 | 52 | 41.97 (±17.32) | 50.27 (±17.32) | -6.98 | 0.023 | 0.046 | small |

Abbreviations: AH=Abductor Hallucis, APB=Abductor Pollicis Brevis, EDB=Extensor Digitorum Brevis, ADM=Abductor Digiti Minimi,

The table presents the result of the ANCOVA analysis when controlling for age.

For the pediatric group, most mean nerve amplitudes between sexes did not reach significance. The sensory median manifested significant differences, with a moderate effect size (partial η2). There was a small effect for the sensory Sural and Ulnar nerves.

**Supplementary Table 7: Nerve tested by sex of normal study cohort in the older population (aged >70)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nerve name** | **Type** | **N** | | **Mean (±SD) Amplitude** | | **Estimate Males** | **P- value** | **Partial  η2** | **Effect  size magnitude** |
| **Males** | **Females** | **Males** | **Females** |
| Median - APB (mV) | Motor | 94 | 200 | 8.95 (±2.38) | 8.19 (±2.38) | 0.75 | 0.022 | 0.018 | small |
| Peroneal - EDB (mV) | Motor | 179 | 307 | 4.19 (±1.63) | 3.67 (±1.63) | 0.52 | 0.001 | 0.023 | small |
| Tibial - AH (mV) | Motor | 179 | 287 | 6.03 (±2.8) | 6.17 (±2.8) | -0.12 | 0.664 | <0.01 | negligible |
| Ulnar - ADM (mV) | Motor | 49 | 132 | 7.47 (±1.65) | 6.69 (±1.65) | 0.8 | 0.006 | 0.041 | small |
| **Median – Digit II (Antidromic, μV)** | Sensory | 92 | 198 | 23.61 (±10.09) | 30.31 (±10.09) | -6.79 | <0.001 | 0.102 | **moderate** |
| Radial - Anatomical snuff box (Forearm, μV) | Sensory | 48 | 126 | 24.38 (±11.27) | 29.62 (±11.27) | -5.26 | 0.006 | 0.043 | small |
| Superficial peroneal – Ankle (μV) | Sensory | 156 | 261 | 6.64 (±4.16) | 6.93 (±4.16) | -0.27 | 0.512 | <0.01 | negligible |
| Sural - Ankle (Calf, μV) | Sensory | 195 | 319 | 10.22 (±6.29) | 11.33 (±6.29) | -1.14 | 0.025 | 0.010 | negligible |
| **Ulnar - Digit V (Antidromic, μV)** | Sensory | 47 | 136 | 19.99 (±9.37) | 27.49 (±9.37) | -7.74 | <0.001 | 0.135 | **moderate** |

Abbreviations: AH=Abductor Hallucis, APB=Abductor Pollicis Brevis, EDB=Extensor Digitorum Brevis, ADM=Abductor Digiti Minimi. The table presents the result of the ANCOVA analysis when controlling for age. For the older population, most of the nerves presented significant differences in mean amplitude between males and females. Only the Tibial AH and Superficial Peroneal nerves failed to reach significance. The sensory Ulnar and Median nerves exhibited significant differences, with a moderate effect size (partial η2).