Szczegółowy opis przedmiotu zamówienia

**ZADANIE 1**

**Odczynniki:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Odczynnik** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| kwas benzoesowy, 99% | Benzoic acid, 99% | 500 g | 2 |  |
| kwas p-metoksybenzoesowy, 98% | p-Anisic acid, 98% | 500 g | 2 |  |
| kwas p-nitrobenzoesowy, 99+% | 4-Nitrobenzoic acid, 99+% | 1 kg | 1 |  |
| kwas p-t-butylobenzoesowy, 99% | 4-tert-Butylbeznoic acid, 99% | 500 g | 2 |  |
| kwas p-(*N,N*-dimetyloamino)benzoesowy, 98% | 4-Dimethylaminobenzoic acid, 98% | 500 g | 2 |  |
| kwas p-bromobenzoesowy, 97% | 4-Bromobenzoic acid, 97% | 500 g | 2 |  |
| Bromocyjan, 97% | Cyanogen bromide, 97% | 500 g | 5 |  |
| wodzian hydrazyny, 100%  (hydrazyna 64%) | Hydrazine hydrate, 100%  (hydrazine, 64%) | 500 ml | 10 |  |
| Tiosemikarbazyd, 98+% | Thiosemicarbazide, 98+% | 500g | 4 |  |
| chlorek tionylu, 99,7 % | Thionyl chloride, 99,7% | 1 L | 1 |  |
| tlenochlorek fosforu (V), 99% | Phosphorus oxychloride, 99% | 1 kg | 1 |  |
| pentachlorek fosforu, 98% | Phosphorus pentachloride, 98% | 1 kg | 2 |  |
| azotan (III) sodu, cz.d.a. | Sodium nitrite, 99% | 1 kg | 2 |  |
| węglan sodu, bezwodny, cz.d.a | Sodium carbonate, anhydrous, 99,5% | 1 kg | 2 |  |
| Fenol, 99% | Phenol, 99% | 1 kg | 1 |  |
| Anilina, 99,5% | Aniline, 99,5% | 1 L | 1 |  |
| *N,N*-dimetyloanilina, 99% | N,N-Dimethylaniline, 99% | 1L | 1 |  |
| Siarczan (VI) magnezu bezwodny, cz.d.a. | Magnesium sulfate, anhydrous, 99% | 1 kg | 2 |  |
| wodorotlenek potasu, cz.d.a. | Potassium hydroxide, ca. 85%, flakes | 1 kg | 4 |  |
| kwas siarkowy 95%, cz.d.a. | Sulfuric acid, 95% solution in water | 1 L | 10 |  |
| kwas solny 35-38%, cz.d.a. | Hydrochloric acid,  35-38% solution in water | 1 L | 10 |  |
| Razem | | | |  |

**Rozpuszczalniki:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Metanol cz.d.a. | 5 L | 4 |  |
| Etanol skażony eterem | 4 kg | 4 |  |
| Aceton techniczny | 5 L | 6 |  |
| Chloroform stabilizowany etanolem, cz.d.a. | 5 L | 4 |  |
| Benzen cz.d.a. | 5 L | 4 |  |
| Octan etylu cz.d.a. | 5 L | 4 |  |
| Heksan - frakcja z nafty cz. | 5 L | 2 |  |
| Toluen cz.d.a. | 5 L | 4 |  |
| Eter dietylowy cz.d.a. | 2,5 L | 4 |  |
| Razem | | |  |

**Rozpuszczalniki do oznaczeń spektrofotometrycznych:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Metanol do spektroskopii (99,9% for spectroscopy) | 2,5 L | 1 |  |
| Chloroform do spektroskopii stabilizowany etanolem  (99+% for spectroscopy, stabilized with ethanol) | 2,5 L | 1 |  |
| Dichlorometan do spektroskopii stabilizowany amylenem  (99,8% for spectroscopy, stabilized with amylene) | 2,5 L | 1 |  |
| Razem | | |  |

**Rozpuszczalniki deuterowane do analizy NMR**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Chloroform-d (99,8+ atom % D with 0,03 % TMS) | 100 ml | 3 |  |
| DMSO-d6 (99,9 atom % D with 0,03% TMS) | 100 ml | 3 |  |
| Razem | | |  |

**Materiały do chromatografii:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Materiały** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| Płytki chromatograficzne aluminiowe pokryte żelem krzemionkowym 60 F254  25 płytek o rozmiarze 20x20 cm | Aluminum TLC plate, silica gel coated with flourescent indicator F254. The silica gel TLC plates come in a quantity of 25 size 20x20 cm | 25 szt. | 10 |  |
| żel krzemionkowy 60  (0.040-0.063 mm),  (230-400 mesh) | Silica gel for chromatography  60 (0.040-0.063 mm),  (230-400 mesh) | 2,5 kg | 2 |  |
| Razem | | | |  |

**ZADANIE 1**

**Odczynniki niezbędne do wykonania zleconych prac badawczych:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Odczynnik** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| kwas benzoesowy, 99% | Benzoic acid, 99% | 500 g | 1 |  |
| kwas p-metoksybenzoesowy, 98% | p-Anisic acid, 98% | 500 g | 1 |  |
| kwas p-nitrobenzoesowy, 99+% | 4-Nitrobenzoic acid, 99+% | 1 kg | 1 |  |
| kwas p-t-butylobenzoesowy, 99% | 4-tert-Butylbeznoic acid, 99% | 500 g | 1 |  |
| kwas p-(N,Ndimetyloamino)benzoesowy, 98% | 4-Dimethylaminobenzoic acid, 98% | 500 g | 1 |  |
| kwas p-bromobenzoesowy, 97% | 4-Bromobenzoic acid, 97% | 500 g | 1 |  |
| kwas 1-naftalenokarboksylowy | 1-Naphtoic acid 98% | 500 g | 1 |  |
| kwas 2-naftalenokarboksylowy | 2-Naphtoic acid 98% | 500 g | 1 |  |
| kwas 9-antracenokarboksylowy | Anthracene-9-carboxylic acid 98% | 500 g | 1 |  |
| Bromocyjan, 97% | Cyanogen bromide, 97% | 500 g | 4 |  |
| wodzian hydrazyny, 100% (hydrazyna 64%) | Hydrazine hydrate, 100% (hydrazine, 64%) | 500 g | 10 |  |
| Tiosemikarbazyd, 98+% | Thiosemicarbazide, 98+% | 500g | 4 |  |
| tlenochlorek fosforu (V), 99% | Phosphorus oxychloride, 99% | 1l | 3 |  |
| azotan (III) sodu, cz.d.a. | Sodium nitrite, 99% | 1 kg | 2 |  |
| węglan sodu, bezwodny, cz.d.a | Sodium carbonate, anhydrous, 99,5% | 1 kg | 2 |  |
| Fenol, 99% | Phenol, 99% | 1 kg | 1 |  |
| Anilina, 99,5% | Aniline, 99,5% | 1 L | 1 |  |
| N,N-dimetyloanilina, 99% | N,N-Dimethylaniline, 99% | 1L | 1 |  |
| Siarczan (VI) magnezu bezwodny, cz.d.a. | Magnesium sulfate, anhydrous, 99% | 1 kg | 2 |  |
| kwas nitrozylosiarkowy | Nitrosylsulfuric acid | 250 ml | 1 |  |
| 4-nitrofenylohydrazyna | 4-nitrophenylhydrazine 97% | 100 g | 1 |  |
| chlorowodorek 4-metoksyfenylohydrazyny | 4-methoxyphenylhydrazine hydrochloride 98% | 50g | 1 |  |
| wodorotlenek potasu, cz.d.a. | Potassium hydroxide, ca. 85%, flakes | 1 kg | 4 |  |
| kwas siarkowy 95%, cz.d.a. | Sulfuric acid, 95% solution in water | 1 L | 10 |  |
| kwas solny 35-38%, cz.d.a. | Hydrochloric acid, 35-38% solution in water | 1 L | 10 |  |
| Razem | | | |  |

**Rozpuszczalniki:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Metanol cz.d.a. | 5 L | 4 |  |
| Etanol skażony eterem | 4 kg | 5 |  |
| Aceton techniczny | 5 L | 6 |  |
| Chloroform stabilizowany etanolem, cz.d.a. | 5 L | 4 |  |
| Benzen cz.d.a. | 5 L | 4 |  |
| Octan etylu cz.d.a. | 5 L | 4 |  |
| Heksan - frakcja z nafty cz. | 5 L | 2 |  |
| Toluen cz.d.a. | 5 L | 4 |  |
| Eter dietylowy cz.d.a. | 2,5 L | 4 |  |
| Razem | | |  |

**Rozpuszczalniki deuterowane do analizy NMR**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Chloroform-d (99,8+ atom % D with 0,03 % TMS) | 100 ml | 3 |  |
| DMSO-d6 (99,9 atom % D with 0,03% TMS) | 100 ml | 3 |  |
| Razem | | |  |

**Materiały do chromatografii:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Materiały** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| Płytki chromatograficzne aluminiowe pokryte żelem krzemionkowym 60 F254  25 płytek o rozmiarze 20x20 cm | Aluminum TLC plate, silica gel coated with flourescent indicator F254. The silica gel TLC plates come in a quantity of 25 size 20x20 cm | 25 szt. | 10 |  |
| żel krzemionkowy 60  (0.040-0.063 mm),  (230-400 mesh) | Silica gel for chromatography  60 (0.040-0.063 mm),  (230-400 mesh) | 2,5 kg | 10 |  |
| Razem | | | |  |

**ZADANIE 3**

**Odczynniki:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Odczynnik** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| kwas benzoesowy, 99% | Benzoic acid, 99% | 500 g | 1 |  |
| kwas p-metoksybenzoesowy, 98% | p-Anisic acid, 98% | 500 g | 1 |  |
| kwas p-nitrobenzoesowy, 99+% | 4-Nitrobenzoic acid, 99+% | 1 kg | 1 |  |
| kwas p-t-butylobenzoesowy, 99% | 4-tert-Butylbeznoic acid, 99% | 500 g | 1 |  |
| kwas p-(*N,N*-dimetyloamino)benzoesowy, 98% | 4-Dimethylaminobenzoic acid, 98% | 500 g | 1 |  |
| kwas p-bromobenzoesowy, 97% | 4-Bromobenzoic acid, 97% | 500 g | 1 |  |
| Bromocyjan, 97% | Cyanogen bromide, 97% | 500 g | 3 |  |
| wodzian hydrazyny, 100%  (hydrazyna 64%) | Hydrazine hydrate, 100%  (hydrazine, 64%) | 500 ml | 6 |  |
| Tiosemikarbazyd, 98+% | Thiosemicarbazide, 98+% | 500g | 4 |  |
| pentachlorek fosforu, 98% | Phosphorus pentachloride, 98% | 1 kg | 2 |  |
| azotan (III) sodu, cz.d.a. | Sodium nitrite, 99% | 1 kg | 2 |  |
| węglan sodu, bezwodny, cz.d.a | Sodium carbonate, anhydrous, 99,5% | 1 kg | 2 |  |
| Fenol, 99% | Phenol, 99% | 1 kg | 1 |  |
| Anilina, 99,5% | Aniline, 99,5% | 1 L | 1 |  |
| *N,N*-dimetyloanilina, 99% | N,N-Dimethylaniline, 99% | 1L | 1 |  |
| Siarczan (VI) magnezu bezwodny, cz.d.a. | Magnesium sulfate, anhydrous, 99% | 1 kg | 1 |  |
| wodorotlenek potasu, cz.d.a. | Potassium hydroxide, ca. 85%, flakes | 1 kg | 4 |  |
| kwas siarkowy 95%, cz.d.a. | Sulfuric acid, 95% solution in water | 1 L | 10 |  |
| kwas solny 35-38%, cz.d.a. | Hydrochloric acid,  35-38% solution in water | 1 L | 10 |  |
| Razem | | | |  |

**Rozpuszczalniki:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Metanol cz.d.a. | 5 L | 4 |  |
| Etanol skażony eterem | 4 kg | 4 |  |
| Aceton techniczny | 5 L | 6 |  |
| Chloroform stabilizowany etanolem, cz.d.a. | 5 L | 4 |  |
| Benzen cz.d.a. | 5 L | 4 |  |
| Octan etylu cz.d.a. | 5 L | 4 |  |
| Heksan - frakcja z nafty cz. | 5 L | 2 |  |
| Toluen cz.d.a. | 5 L | 4 |  |
| Eter dietylowy cz.d.a. | 2,5 L | 4 |  |
| Razem | | |  |

**Materiały do chromatografii:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Materiały** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| żel krzemionkowy 60  (0.040-0.063 mm),  (230-400 mesh) | Silica gel for chromatography  60 (0.040-0.063 mm),  (230-400 mesh) | 2,5 kg | 2 |  |
| Razem | | | |  |

**ZADANIE 5**

**Odczynniki:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Odczynnik** | **Nazwa angielska** | **Opak.** | **Ilość** | **Cena netto** |
| kwas benzoesowy, 99% | Benzoic acid, 99% | 500 g | 1 |  |
| kwas p-metoksybenzoesowy, 98% | p-Anisic acid, 98% | 500 g | 1 |  |
| kwas p-nitrobenzoesowy, 99+% | 4-Nitrobenzoic acid, 99+% | 1 kg | 1 |  |
| Kwas p-t-butylobenzoesowy, 99% | 4-tert-Butylbeznoic acid, 99% | 500 g | 1 |  |
| kwas p-(*N,N*-dimetyloamino)benzoesowy, 98% | 4-Dimethylaminobenzoic acid, 98% | 500 g | 1 |  |
| kwas p-bromobenzoesowy, 97% | 4-Bromobenzoic acid, 97% | 500 g | 1 |  |
| Bromocyjan, 97% | Cyanogen bromide, 97% | 500 g | 3 |  |
| wodzian hydrazyny, 100%  (hydrazyna 64%) | Hydrazine hydrate, 100%  (hydrazine, 64%) | 500 ml | 6 |  |
| Tiosemikarbazyd, 98+% | Thiosemicarbazide, 98+% | 500g | 4 |  |
| pentachlorek fosforu, 98% | Phosphorus pentachloride, 98% | 1 kg | 2 |  |
| azotan (III) sodu, cz.d.a. | Sodium nitrite, 99% | 1 kg | 2 |  |
| węglan sodu, bezwodny, cz.d.a | Sodium carbonate, anhydrous, 99,5% | 1 kg | 2 |  |
| Fenol, 99% | Phenol, 99% | 1 kg | 1 |  |
| Anilina, 99,5% | Aniline, 99,5% | 1 L | 1 |  |
| *N,N*-dimetyloanilina, 99% | N,N-Dimethylaniline, 99% | 1L | 1 |  |
| Siarczan (VI) magnezu bezwodny, cz.d.a. | Magnesium sulfate, anhydrous, 99% | 1 kg | 1 |  |
| wodorotlenek potasu, cz.d.a. | Potassium hydroxide, ca. 85%, flakes | 1 kg | 4 |  |
| kwas siarkowy 95%, cz.d.a. | Sulfuric acid, 95% solution in water | 1 L | 10 |  |
| kwas solny 35-38%, cz.d.a. | Hydrochloric acid,  35-38% solution in water | 1 L | 10 |  |
| Razem | | | |  |

**Rozpuszczalniki:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rozpuszczalnik** | **Opak.** | **Ilość** | **Cena netto** |
| Metanol cz.d.a. | 5 L | 4 |  |
| Etanol skażony eterem | 4 kg | 4 |  |
| Aceton techniczny | 5 L | 6 |  |
| Chloroform stabilizowany etanolem, cz.d.a. | 5 L | 4 |  |
| Benzen cz.d.a. | 5 L | 4 |  |
| Octan etylu cz.d.a. | 5 L | 4 |  |
| Heksan - frakcja z nafty cz. | 5 L | 2 |  |
| Toluen cz.d.a. | 5 L | 4 |  |
| Eter dietylowy cz.d.a. | 2,5 L | 4 |  |
| Razem | | |  |