**Topic 8 – Net all-wave radiation**

**1. Complete the table using the following symbols:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *L*↓ | *K*↓(1 - α) | *K*↑ = α*K*↓ | K ↓ | ε*0 L*↓ *-* ε*0* σ*T04* | *L↑= L*↓(1 - ε*0* ) + ε*0*σ*T04* |

|  |  |
| --- | --- |
| ***Variable*** | ***Symbol/Equation*** |
| Incoming shortwave radiation |  |
| Reflected shortwave radiation |  |
| Absorbed shortwave radiation |  |
| Incoming longwave radiation |  |
| Outgoing longwave radiation |  |
| Absorbed longwave radiation |  |

**2. Write down the equation for net shortwave radiation. How is this related to albedo (α)?**

**3. Write down the equation for net longwave radiation. How is this related to surface emissivity (ε*0*) and surface temperature (*T0*)?**

**4. Write down the equation for net all-wave radiation.**