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Zakład Klimatologii i Ochrony Atmosfery  
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Położenie obserwatorium (observatory location)

Współrzędne geograficzne (coordinates): 15°30'44"E 50°27'47"N

Wysokość nad poziomem morza (altitude): 1364 m

Czas podawany w biuletynie jest czasem UTC.

UTC time is used in the bulletin.

Parametr Parameter	Opis	Description
D	Dzień	Day
T	Temperatura powietrza	Air temperature
Tmax	Temperatura maksymalna	Maximum temperature
Tmin	Temperatura minimalna	Minimum temperature
Tmin5	Temperatura minimalna przy gruncie	Minimum temperature near the ground
U	Wilgotność względna	Relative humidity
e	Ciśnienie pary wodnej	Vapour pressure
P	Ciśnienie atmosferyczne na poziomie stacji	Atmospheric pressure at station level
V	Prędkość wiatru	Wind speed
α	Kierunek wiatru	Wind direction
R	Dobowa suma opadu	Precipitation
HS	Wysokość pokrywy śnieżnej	Snow depth
SD	Uśonecznienie	Sunshine duration
Ew	Parowanie	Evaporation
PM2.5	Stężenie pyłu zawieszonego PM2.5	PM2.5 concentration
PM10	Stężenie pyłu zawieszonego PM10	PM10 concentration
O3	Stężenie ozonu	O3 concentration
UTCI	Uniwersalny wskaźnik odczuć ciepłych	Universal Thermal Climate Index
NA	Brak danych	No data
m	Średnia dobowa	Daily mean
count	Liczba pomiarów	Measurements count
•	Zjawisko nie wystąpiło	Lack of phenomenon

UTCI			
Nr Id	Skala Scale	Opis	Description
1	> 46°C	ekstremalny stres gorąca	extreme heat stress
2	38°C ÷ 46°C	bardzo silny stres gorąca	very strong heat stress
3	32°C ÷ 38°C	silny stres gorąca	strong heat stress
4	26°C ÷ 32°C	umiarkowany stres gorąca	moderate heat stress
5	9°C ÷ 26°C	warunki termoneutralne	no thermal stress
6	0°C ÷ 9°C	niewielki stres chłodu	slight cold stress
7	-13°C ÷ 0°C	umiarkowany stres chłodu	moderate cold stress
8	-27°C ÷ -13°C	silny stres chłodu	strong cold stress
9	-40°C ÷ -27°C	bardzo silny	very strong cold stress
10	< -40°C	ekstremalny stres chłodu	extreme cold stress

**Tabela 1. Temperatura powietrza (T), wilgotność względna (U) i ciśnienie atmosferyczne (P)****Table 1. Air temperature (T), relative humidity (U) and atmospheric pressure (P)**

D	T [°C]								U [%]					P [hPa]				
	00	06	12	18	Tm	Tmax	Tmin	Tmin5	00	06	12	18	Um	00	06	12	18	Pm
1	14.4	17.7	23.3	23.2	19.7	25.8	13.9	11.6	86.9	70.8	51.2	56.0	66.2	1008.9	1009.1	1007.8	1005.1	1007.7
2	14.2	19.2	27.8	25.7	21.7	29.3	12.5	10.3	98.5	67.2	30.5	46.5	60.7	1005.4	1005.4	1004.7	1002.8	1004.6
3	14.8	19.5	28.5	26.4	22.3	29.5	12.9	10.6	95.0	68.6	33.0	42.2	59.7	1003.8	1003.7	1003.0	1000.5	1002.8
4	14.8	19.5	28.9	26.7	22.5	30.4	12.5	10.0	86.3	61.9	31.0	46.6	56.5	1001.2	1000.1	999.0	997.2	999.4
5	16.6	21.1	28.5	24.9	22.8	29.8	14.3	11.6	83.4	64.3	36.0	53.5	59.3	997.8	997.6	996.6	995.3	996.8
6	17.9	20.5	27.4	24.4	22.6	28.7	15.4	12.6	67.9	65.6	34.5	45.8	53.5	994.7	995.5	996.0	996.5	995.7
7	18.8	15.4	20.7	22.4	19.3	24.4	15.3	12.8	78.3	97.9	62.6	59.1	74.5	998.7	1000.9	1001.9	1000.3	1000.5
8	15.7	18.9	16.1	21.9	18.2	23.6	10.0	7.1	95.1	69.9	75.7	36.7	69.4	1000.0	1003.4	1007.9	1008.0	1004.8
9	10.1	15.6	25.1	23.9	18.7	26.8	8.4	5.6	93.8	68.0	27.7	31.8	55.3	1011.7	1012.9	1010.8	1007.2	1010.7
10	16.0	21.4	30.5	28.0	24.0	31.5	14.8	12.4	67.8	65.3	36.0	44.3	53.4	1005.7	1002.9	1000.5	997.8	1001.7
11	19.3	24.4	32.3	29.9	26.5	33.8	17.6	15.1	88.5	59.9	32.9	40.4	55.4	997.4	997.4	997.1	996.5	997.1
12	19.1	24.1	32.3	29.0	26.1	32.9	18.5	15.3	80.8	59.9	28.6	38.1	51.9	997.2	996.4	995.8	994.5	996.0
13	21.7	19.9	23.1	22.2	21.7	26.4	16.8	14.5	63.7	61.9	55.6	79.8	65.3	997.8	1000.4	1000.8	1000.9	1000.0
14	17.0	20.1	28.2	27.8	23.3	30.7	16.0	14.5	100.0	78.3	41.5	43.7	65.9	1003.0	1005.1	1005.6	1003.6	1004.3
15	21.2	24.4	33.1	23.3	25.5	34.4	18.7	18.0	70.9	66.0	27.2	49.1	53.3	1002.5	999.4	997.0	996.3	998.8
16	18.7	19.8	23.5	22.1	21.0	24.1	14.8	11.5	97.4	71.0	50.7	47.8	66.7	999.6	1002.3	1003.4	1005.3	1002.7
17	15.0	18.1	24.6	24.2	20.5	26.7	12.6	10.4	75.3	57.3	31.8	33.1	49.4	1007.5	1008.5	1007.8	1005.7	1007.4
18	13.6	19.6	26.1	24.9	21.1	28.0	12.0	9.6	81.7	61.4	35.0	42.1	55.1	1006.6	1006.4	1004.4	1001.6	1004.8
19	15.7	20.7	30.3	28.5	23.8	31.6	14.2	11.7	81.8	69.0	27.9	38.1	54.2	1000.5	1000.0	997.7	995.5	998.4
20	20.1	22.3	31.1	25.3	24.7	31.9	18.2	15.3	71.0	62.5	24.4	50.4	52.1	995.4	996.0	996.0	996.5	996.0
21	20.6	19.8	21.7	22.4	21.1	25.6	16.2	14.6	61.7	69.7	68.4	76.7	69.1	998.4	1001.2	1003.1	1002.3	1001.3
22	16.2	18.4	25.3	23.7	20.9	27.0	14.8	13.0	100.0	87.9	34.5	31.2	63.4	1005.8	1008.0	1007.3	1005.5	1006.7
23	17.8	18.1	24.9	23.7	21.1	26.7	12.1	9.0	55.4	55.9	30.6	29.3	42.8	1006.2	1006.8	1007.4	1007.2	1006.9
24	12.2	18.3	28.6	27.7	21.7	30.6	10.0	7.5	72.0	54.2	29.3	29.1	46.2	1009.2	1009.9	1009.6	1008.8	1009.4
25	15.6	22.4	31.0	30.5	24.9	33.1	14.3	12.3	72.8	58.8	32.8	44.0	52.1	1010.7	1010.4	1009.6	1008.2	1009.7
26	20.4	26.0	35.2	33.7	28.8	36.5	18.9	16.4	88.0	59.2	24.9	29.7	50.5	1008.8	1007.9	1006.4	1003.7	1006.7
27	26.9	23.3	26.9	24.6	25.4	27.8	15.5	12.3	49.6	49.7	24.2	24.0	36.9	1004.2	1006.0	1005.9	1004.8	1005.2
28	15.7	17.0	22.5	23.1	19.6	25.2	11.7	8.8	65.1	59.0	35.6	30.8	47.6	1007.6	1008.7	1008.3	1007.2	1008.0
29	17.1	18.6	27.2	28.2	22.8	30.4	12.4	9.9	52.8	54.6	27.0	24.8	39.8	1008.1	1008.2	1006.7	1004.2	1006.8
30	17.2	20.8	34.6	33.0	26.4	36.9	13.6	10.8	68.8	58.3	17.9	23.4	42.1	1004.3	1003.4	1000.9	998.1	1001.7

**Tabela 2. Prędkość (V) i kierunek ( $\alpha$ ) wiatru, dobowa suma opadu (R), usłonecznienie (SD) i parowanie (Ew)**  
**Table 2. Wind speed (V) and direction ( $\alpha$ ), daily sum of precipitation (R), sunshine duration (SD) and evaporation (Ew)**

D	V [m/s]							$\alpha$ [1-32]					R [mm]	SD [h]	Ew [mm]
	00	06	12	18	Vm	Vmax	Vh	00	06	12	18	Doba			
1	0.2	0.7	1.2	0.7	0.7	3.1	18	0	11	26	22	26	0.0	8.9	1.9
2	0.3	0.7	1.0	0.2	0.5	1.6	13	11	9	7	0	8	0.0	14.2	1.6
3	0.8	0.6	1.6	2.3	1.3	6.9	15	7	8	30	7	9	0.0	15.2	2.3
4	2.8	1.6	1.1	1.4	1.7	5.4	20	8	6	0	11	7	0.0	14.4	3.0
5	1.7	2.3	2.1	1.8	2.0	5.5	0	28	9	9	9	9	0.0	13.8	2.7
6	0.7	0.6	1.1	1.5	1.0	2.9	15	9	30	2	2	0	0.0	11.1	2.9
7	0.6	1.5	1.2	1.7	1.2	4.8	13	29	31	19	22	19	2.3	6.1	2.9
8	1.9	0.5	4.0	4.6	2.7	11.0	14	20	17	18	17	18	0.0	8.5	0.9
9	1.3	1.8	2.3	0.9	1.6	5.5	7	14	18	19	19	19	0.9	14.6	1.6
10	1.3	0.4	0.3	0.4	0.6	2.9	0	20	3	17	31	18	0.0	12.6	2.8
11	0.4	0.4	3.8	3.1	1.9	7.9	10	2	30	7	4	6	0.0	14.3	2.9
12	3.0	1.6	3.5	2.1	2.5	7.1	13	9	8	8	6	6	0.0	14.7	3.8
13	0.8	1.3	1.7	0.4	1.1	3.0	23	5	8	8	9	9	0.0	7.9	5.1
14	1.3	0.8	2.2	2.7	1.8	4.1	12	1	0	28	2	0	3.2	13.2	1.3
15	1.7	1.7	2.3	2.1	2.0	5.7	14	3	28	0	28	0	0.0	9.8	2.8
16	1.9	1.7	2.1	2.2	2.0	5.3	15	2	30	0	31	31	5.2	5.8	3.2
17	1.9	2.1	1.5	1.8	1.8	5.0	20	29	0	22	28	24	0.0	13.9	1.7
18	1.8	1.7	2.5	1.9	2.0	5.8	4	26	0	0	26	26	0.0	14.6	2.6
19	2.7	0.7	1.0	0.4	1.2	3.6	0	31	28	0	2	29	0.0	14.2	2.6
20	0.6	0.9	1.5	1.8	1.2	3.8	20	0	30	8	10	8	0.0	8.1	3.3
21	1.2	2.4	2.7	2.1	2.1	9.3	10	13	15	17	18	18	0.0	5.0	3.3
22	0.8	1.9	0.7	0.5	1.0	3.4	23	20	12	15	20	15	16.1	12.0	0.6
23	1.5	2.3	4.1	3.8	2.9	7.6	17	18	29	30	0	30	0.0	12.6	3.1
24	4.3	2.7	2.8	1.8	2.9	7.5	0	2	28	31	31	28	0.0	15.5	3.0
25	2.1	1.8	0.6	0.9	1.3	5.3	0	27	26	27	31	29	0.0	14.9	3.4
26	0.6	2.1	3.6	2.4	2.2	6.5	11	26	10	10	11	11	0.0	14.9	3.3
27	3.4	2.5	1.5	2.3	2.4	7.3	20	11	10	13	13	15	0.0	14.2	6.2
28	3.5	2.1	2.1	1.4	2.3	5.9	0	16	14	13	18	17	0.0	8.1	4.6
29	2.7	1.3	1.3	1.9	1.8	4.7	22	19	19	14	12	19	0.0	15.2	2.8
30	2.0	1.6	2.0	1.6	1.8	6.2	10	19	21	23	20	19	0.0	15.1	3.9

**Tabela 3. Frekwencja stężeń pyłu zawieszonego PM2.5 w klasach oraz wartości średnie i maksima dobowe**  
**Table 3. Frequency of PM2.5 concentrations in classes, daily average and maximum concentration**

D	PM2.5 [ $\mu\text{g}/\text{m}^3$ ]					PM2.5m	PM2.5max	PM2.5count
	$\leq 25^*$	25 ÷ 50*	50 ÷ 75*	75 ÷ 100*	>100*			
1	99.6	0.4	0.0	0.0	0.0	12.9	33.0	1388
2	96.2	3.8	0.0	0.0	0.0	13.1	33.0	1440
3	88.5	11.5	0.0	0.0	0.0	15.8	41.0	1439
4	81.6	18.1	0.3	0.0	0.0	16.1	56.0	1439
5	87.9	11.8	0.3	0.0	0.0	14.4	54.0	1440
6	98.6	1.4	0.0	0.0	0.0	13.6	36.0	1440
7	99.3	0.7	0.0	0.0	0.0	11.5	39.0	1440
8	95.1	3.8	1.1	0.0	0.0	11.1	57.0	1439
9	95.3	4.7	0.0	0.0	0.0	11.2	40.0	1440
10	70.7	29.2	0.1	0.0	0.0	19.6	51.0	1440
11	88.1	11.9	0.0	0.0	0.0	17.4	45.0	796
12	77.3	19.9	2.3	0.5	0.0	19.1	77.0	818
13	91.9	6.7	1.3	0.1	0.0	11.9	78.0	1440
14	79.7	20.2	0.1	0.0	0.0	16.9	56.0	1440
15	67.3	30.7	1.6	0.4	0.0	22.4	99.0	1440
16	97.2	2.8	0.0	0.0	0.0	11.2	37.0	1440
17	99.4	0.6	0.0	0.0	0.0	8.3	34.0	1440
18	99.5	0.5	0.0	0.0	0.0	11.4	29.0	1440
19	74.2	22.1	2.9	0.4	0.3	20.2	114.0	1440
20	82.6	16.3	1.2	0.0	0.0	15.7	63.0	1440
21	83.5	11.7	3.4	0.8	0.6	16.6	156.0	1440
22	91.4	8.1	0.6	0.0	0.0	10.3	63.0	1440
23	99.6	0.4	0.0	0.0	0.0	6.9	35.0	1440
24	97.5	2.5	0.0	0.0	0.0	11.4	45.0	1440
25	81.5	18.0	0.5	0.0	0.0	17.2	60.0	1440
26	59.9	38.5	1.6	0.0	0.0	20.7	58.0	810
27	91.5	8.5	0.0	0.0	0.0	12.1	42.0	1440
28	99.3	0.7	0.0	0.0	0.0	7.4	33.0	1440
29	95.3	4.6	0.1	0.0	0.0	12.3	52.0	1440
30	99.7	0.3	0.0	0.0	0.0	7.9	28.0	859

Note:

\*) Procent pomiarów minutowych w danej klasie / Percentage of 1. minute measurements in a given class

**Tabela 4. Frekwencja stężeń pyłu zawieszonego PM10 w klasach oraz wartości średnie i maksima dobowe**  
**Table 4. Frequency of PM10 concentrations in classes, daily average and maximum concentration**

D	PM10 [ $\mu\text{g}/\text{m}^3$ ]					PM10m	PM10max	PM10count
	$\leq 25^*$	25 ÷ 50*	50 ÷ 75*	75 ÷ 100*	>100*			
1	84.1	15.6	0.1	0.1	0.0	18.7	76.0	1388
2	77.8	21.5	0.6	0.0	0.0	18.3	58.0	1440
3	59.3	39.5	1.3	0.0	0.0	22.6	59.0	1439
4	63.7	30.0	4.4	0.9	1.0	24.0	133.0	1439
5	66.7	30.5	2.5	0.3	0.0	21.8	92.0	1440
6	72.3	27.1	0.6	0.0	0.0	20.7	61.0	1440
7	91.7	8.1	0.1	0.0	0.0	14.4	56.0	1440
8	81.3	16.7	2.0	0.0	0.0	15.6	73.0	1439
9	87.6	11.7	0.7	0.0	0.0	16.2	72.0	1440
10	46.6	49.3	4.1	0.0	0.0	27.3	70.0	1440
11	68.7	29.8	1.4	0.1	0.0	21.3	76.0	796
12	NA	NA	NA	NA	NA	NA	NA	NA
13	76.8	15.7	6.5	1.0	0.0	17.3	98.0	707
14	62.5	31.6	5.9	0.0	0.0	23.6	65.0	1440
15	33.2	49.2	14.9	2.6	0.1	33.6	103.0	1440
16	82.0	18.0	0.0	0.0	0.0	16.6	46.0	1440
17	97.3	2.7	0.0	0.0	0.0	12.2	45.0	1440
18	85.8	14.2	0.0	0.0	0.0	17.5	37.0	1440
19	60.7	31.3	7.0	0.4	0.6	24.9	125.0	1440
20	64.8	31.1	3.2	0.9	0.0	22.1	100.0	1440
21	73.7	18.7	4.7	2.1	0.8	21.0	193.0	1440
22	86.6	10.9	2.5	0.0	0.0	14.8	68.0	1440
23	99.0	1.0	0.0	0.0	0.0	10.8	43.0	1440
24	82.8	16.3	0.8	0.0	0.0	18.0	54.0	1440
25	57.3	36.3	4.5	1.1	0.8	25.7	126.0	1440
26	56.0	41.1	3.0	0.0	0.0	25.4	70.0	504
27	NA	NA	NA	NA	NA	NA	NA	NA
28	NA	NA	NA	NA	NA	NA	NA	NA
29	NA	NA	NA	NA	NA	NA	NA	NA
30	NA	NA	NA	NA	NA	NA	NA	NA

Note:

\*) Procent pomiarów minutowych w danej klasie / Percentage of 1. minute measurements in a given class

**Tabela 5. Frekwencja stężeń ozonu w klasach oraz wartości średnie i maksima dobowe**  
**Table 5. Frequency of ozone concentrations in classes, daily average and maximum concentration**

D	O3 [ $\mu\text{g}/\text{m}^3$ ]					O3m	O3max	O3count
	$\leq 25^*$	25÷50*	50÷75*	75÷100*	>100*			
1	26.4	18.7	28.9	26.0	0.0	49.8	90.0	1388
2	25.8	13.3	21.3	39.4	0.3	59.4	100.8	1440
3	15.8	19.0	23.0	36.5	5.6	62.2	104.7	1439
4	15.6	19.2	22.4	29.7	13.2	63.9	108.9	1439
5	0.0	25.6	37.6	36.8	0.0	64.8	91.5	1440
6	0.0	18.5	50.8	30.8	0.0	65.1	94.4	1440
7	14.8	19.4	42.6	23.3	0.0	56.7	98.7	1440
8	16.7	28.1	36.8	18.4	0.0	49.7	88.5	1439
9	18.1	6.9	26.3	48.6	0.0	60.5	92.8	1440
10	0.0	24.6	34.8	40.6	0.0	67.8	94.8	1440
11	0.1	34.8	23.6	41.5	0.0	63.9	88.6	796
12	0.0	0.0	25.9	74.1	0.0	79.0	89.7	839
13	14.7	9.8	46.5	18.7	10.3	70.2	867.8	1383
14	16.5	10.0	3.3	32.0	38.3	79.0	121.2	1440
15	0.0	0.1	37.1	27.7	35.1	90.0	127.8	1440
16	0.0	7.9	36.9	21.6	33.6	82.0	118.7	1440
17	0.0	14.6	36.0	39.0	10.3	74.5	105.3	1440
18	0.0	10.4	21.6	26.3	41.7	86.4	122.2	1440
19	0.0	1.4	36.6	17.8	44.2	90.8	132.5	1440
20	0.0	10.2	30.6	21.1	38.1	87.7	138.5	1440
21	0.2	11.0	64.9	21.9	1.9	67.3	106.1	1440
22	0.1	18.0	13.1	34.1	34.7	82.1	114.1	1440
23	0.0	0.0	26.5	34.7	38.8	90.1	112.5	1440
24	0.1	12.9	20.7	11.0	55.3	92.0	132.9	1440
25	0.0	7.6	37.0	14.9	40.5	85.2	127.6	1440
26	0.0	16.6	22.6	11.5	49.3	93.4	147.2	801
27	0.0	0.0	10.1	22.8	67.2	102.9	129.2	1440
28	0.0	8.3	16.2	74.4	1.1	80.9	101.7	1440
29	1.4	11.5	26.9	13.3	46.9	85.3	121.5	1440
30	5.2	16.1	5.3	9.2	64.2	91.9	132.3	1440

Note:

\*) Procent pomiarów minutowych w danej klasie / Percentage of 1. minute measurements in a given class

**Tabela 6. Frekwencja UTCI w klasach oraz wartości średnie i maksima dobowe**  
**Table 6. Frequency of UTCI classes, daily average, maximum and minimum UTCI values**

D	UTCI [°C]																	UTCIcount
	00	06	12	18	UTCI <sub>m</sub>	UTCI <sub>max</sub>	UTCI <sub>min</sub>	przypadków w klasach / occurrences in a given class [%]										
								1	2	3	4	5	6	7	8	9	10	
1	NA	22.1	47.5	23.2	25.4	50.4	13.0	0.0	0.0	0.0	0.0	0.0	57.3	17.0	10.4	7.3	8.0	1384
2	13.9	30.9	42.9	25.1	29.2	54.5	11.4	0.0	0.0	0.0	0.0	0.0	48.1	10.6	9.5	16.5	15.4	1439
3	14.8	31.0	52.7	25.6	30.4	53.5	11.5	0.0	0.0	0.0	0.0	0.0	47.5	8.8	6.8	13.2	23.8	1437
4	14.4	31.6	53.3	25.8	30.9	54.0	11.3	0.0	0.0	0.0	0.0	0.0	47.6	7.4	7.7	11.5	25.9	1437
5	15.7	31.5	42.2	25.0	29.2	55.8	10.6	0.0	0.0	0.0	0.0	0.0	48.9	14.7	7.9	9.2	19.3	1439
6	14.6	31.7	45.8	22.2	29.1	54.2	9.0	0.0	0.0	0.0	0.0	0.1	58.4	4.8	4.7	10.8	21.2	1439
7	15.4	14.2	26.8	21.8	22.4	46.4	6.5	0.0	0.0	0.0	0.0	1.0	65.6	13.7	9.9	9.6	0.1	1434
8	14.8	27.0	20.9	19.2	20.5	46.8	7.4	0.0	0.0	0.0	0.0	0.4	73.9	15.2	6.9	3.5	0.2	1438
9	9.8	31.1	48.0	20.0	27.1	49.3	7.2	0.0	0.0	0.0	0.0	10.5	42.6	4.9	8.3	16.8	16.8	1439
10	13.2	29.4	55.7	27.2	30.6	58.6	9.4	0.0	0.0	0.0	0.0	0.0	46.8	9.9	10.6	14.9	17.9	1439
11	18.8	34.0	56.0	29.3	33.9	58.6	15.2	0.0	0.0	0.0	0.0	0.0	42.8	8.9	8.4	11.4	28.4	1438
12	18.1	35.0	55.2	26.7	33.5	57.8	14.6	0.0	0.0	0.0	0.0	0.0	44.9	8.3	7.4	11.9	27.6	1439
13	18.2	27.3	34.8	23.5	26.0	49.7	8.9	0.0	0.0	0.0	0.0	0.1	60.5	13.3	10.7	8.5	6.9	1439
14	17.2	32.5	53.1	26.9	31.6	54.4	14.2	0.0	0.0	0.0	0.0	0.0	45.8	11.3	8.5	11.7	22.8	1438
15	18.3	34.9	55.7	20.5	30.2	59.2	14.0	0.0	0.0	0.0	0.0	0.0	53.0	10.4	9.0	5.3	22.3	1439
16	18.7	21.4	32.5	20.4	23.7	50.0	11.4	0.0	0.0	0.0	0.0	0.0	67.6	14.7	9.9	5.6	2.2	1439
17	13.3	31.8	48.2	21.8	28.2	48.8	11.5	0.0	0.0	0.0	0.0	0.0	51.4	5.8	9.0	17.3	16.6	1438
18	12.5	28.2	42.7	22.9	27.3	52.8	9.3	0.0	0.0	0.0	0.0	0.0	51.3	11.4	11.9	14.1	11.3	1439
19	14.4	30.6	54.7	27.3	32.0	55.5	10.8	0.0	0.0	0.0	0.0	0.0	45.3	9.8	8.3	12.0	24.6	1438
20	19.1	27.4	54.8	24.3	30.0	56.9	14.6	0.0	0.0	0.0	0.0	0.0	55.5	15.2	3.3	2.6	23.4	1439
21	17.9	20.3	35.5	24.4	23.0	50.8	10.9	0.0	0.0	0.0	0.0	0.0	80.4	5.4	3.9	5.2	5.1	1436
22	16.1	21.9	38.7	20.4	26.2	51.9	9.2	0.0	0.0	0.0	0.0	0.0	58.9	12.2	7.2	10.9	10.8	1439
23	14.1	19.5	43.7	21.7	25.3	48.5	6.8	0.0	0.0	0.0	0.0	0.4	56.6	8.1	7.7	23.8	3.4	1439
24	10.5	30.1	52.9	25.6	29.5	54.6	5.9	0.0	0.0	0.0	0.0	4.3	43.6	8.4	7.4	12.6	23.6	1439
25	13.8	33.0	54.8	30.6	33.0	56.3	11.0	0.0	0.0	0.0	0.0	0.0	42.4	9.0	10.5	10.9	27.2	1439
26	19.9	34.4	59.7	32.6	37.1	61.0	16.6	0.0	0.0	0.0	0.0	0.0	27.1	20.3	10.2	10.8	31.6	1436
27	24.0	28.8	49.5	21.8	30.2	50.7	9.3	0.0	0.0	0.0	0.0	0.0	51.4	6.3	8.3	15.1	18.9	1437
28	13.7	19.0	30.1	21.0	22.9	47.7	10.8	0.0	0.0	0.0	0.0	0.0	65.9	9.8	13.3	10.4	0.7	1438
29	13.1	29.8	47.8	26.4	29.8	51.5	8.6	0.0	0.0	0.0	0.0	0.1	47.7	8.5	8.5	12.0	23.2	1438
30	15.1	32.5	58.2	31.7	34.1	59.4	12.8	0.0	0.0	0.0	0.0	0.0	43.0	6.8	8.4	10.0	31.7	1436



**Tabela 7. Liczba dni charakterystycznych w bieżącym miesiącu oraz średnia liczba dni charakterystycznych dla tego miesiąca w wieloleciu 1946-2011 oraz 1971-2000****Table 7. Number of days with threshold value in current month and monthly average number of days with threshold value in the 1946-2011 and 1971-2000 period**

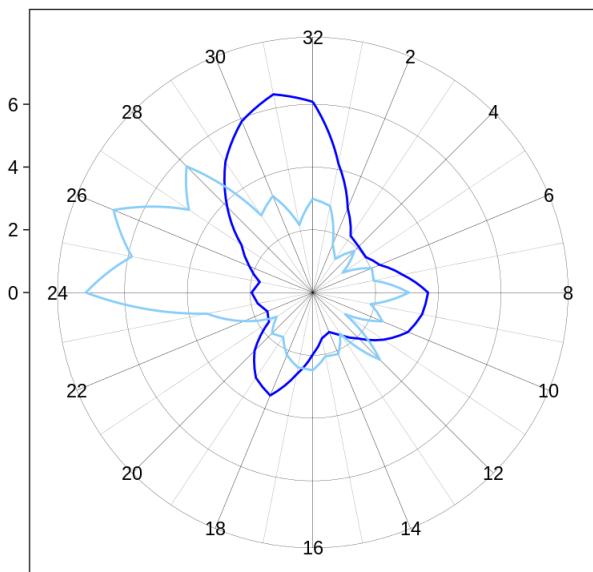
Nazwa / Name	1946-2011	1971-2000	2019-VI
Przymrozkowe (Tmin < 0°C)	0	0	0
Mroźne (Tmax < 0°C)	0	0	0
Bardzo mroźne (Tmin < -10°C)	0	0	0
Ciepłe (Tmax > 20°C)	21	20	30
Gorące (Tmax > 25°C)	10	8	27
Upalne (Tmax > 30°C)	2	2	13
R > 1 mm	9	9	4
R > 10 mm	2	2	1

**Tabela 8. Wartości średnie i ekstrema miesięczne na tle charakterystyk miesięcznych dla wielolecia 1946-2011 i 1971-2000**  
**Table 8. Average and extreme monthly values vs. average monthly characteristics for the 1946-2011 and 1971-2000 period**

	Opis	Description	1946-2011	1971-2000	2019-VI
T [°C]	Średnia miesięczna	Monthly average	16.9	16.7	22.6
	Średnia maksymalna	Average maximum temperature	22.9	22.5	29.3
	Średnia minimalna	Average minimum temperature	11.3	11.2	14.3
	Maksymalna średnia dobowa	Maximum daily temperature	26.9 (1963-06-28)	26.7 (1997-06-29)	28.8 (2019-06-26)
	Absolutne maksimum	Absolute maximum	36.3 (2000-06-22)	36.3 (2000-06-22)	36.9 (2019-06-30)
	Minimalna średnia dobowa	Maximum daily temperature	7.1 (1963-06-28)	7.1 (1997-06-29)	18.2 (2019-06-26)
	Absolutne minimum	Absolute minimum	0.4 (1977-06-01)	0.4 (1977-06-01)	8.4 (2019-06-09)
P [hPa]	Średnia miesięczna	Monthly average	1000.8	1000.3	1003.1
	Maksimum	Maximum	1016.0 (1957-06-13)	1015.9 (1996-06-05)	1010.7 (2019-06-09)
	Minimum	Minimum	980.8 (1958-06-27)	984.7 (1974-06-27)	995.7 (2019-06-06)
v [m/s]	Średnia miesięczna	Monthly average	2.1	2.1	1.7
	Średnie maksimum	Average maximum	5.5	7.3	5.5
	Absolutne maksimum	Absolute maximum	19.4 (2011-06-08)	16.0 (1982-06-06)	11.0 (2019-06-08)
R [mm]	Suma miesięczna	Monthly sum	55.8	65.2	28.3
	Maksymalna suma dobowa	Maximum daily sum	81.7 (1975-06-16)	81.7 (1975-06-16)	16.1 (2019-06-22)

(a) Wind direction frequency [%]

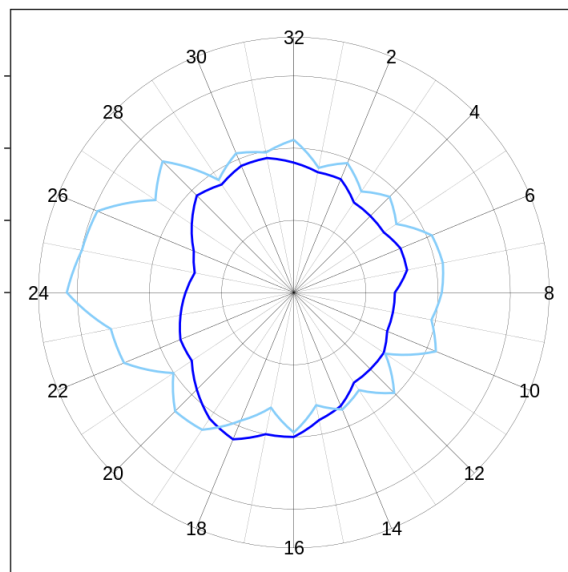
Calm: current 0.5 % 1946-2011 8.1 %



— June 1946-2011 — June 2019

(b) Wind velocity [m/s]

Calm: current 0.5 % 1946-2011 8.1 %

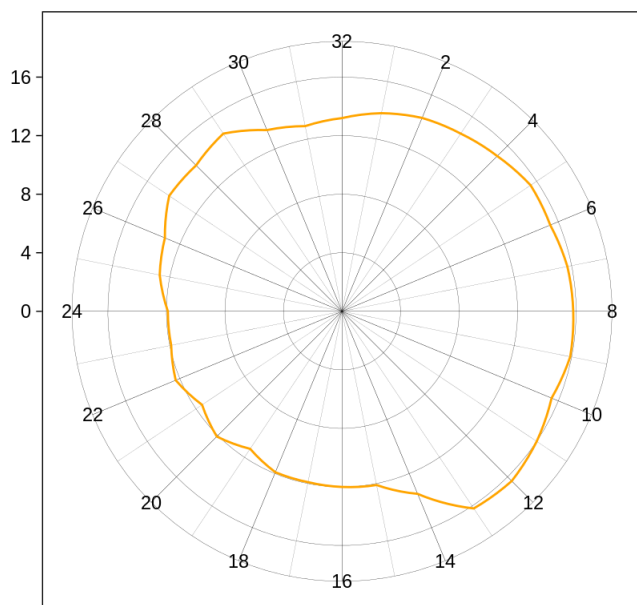


— June 1946-2011 — June 2019

Ryc. 1. Częstość (a) i prędkość (b) wiatru w kierunkach

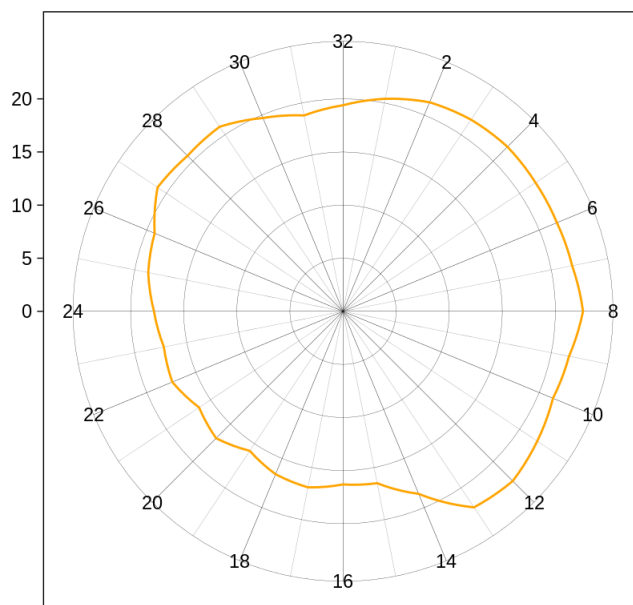
Fig. 1. Wind direction frequency (a) and wind velocity (b) for a given wind direction

(a) Average PM2.5 concentrations [ $\mu\text{g}/\text{m}^3$ ]



— June 2019

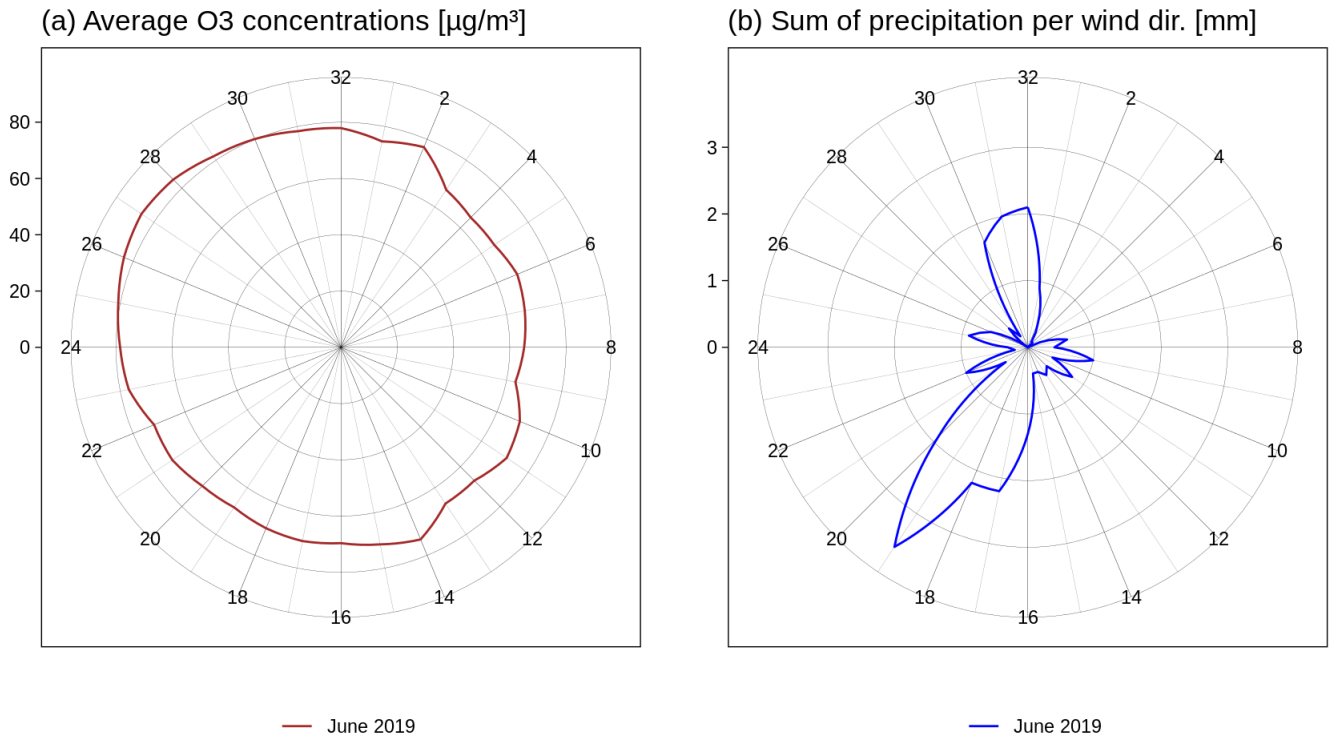
(b) Average PM10 concentrations [ $\mu\text{g}/\text{m}^3$ ]



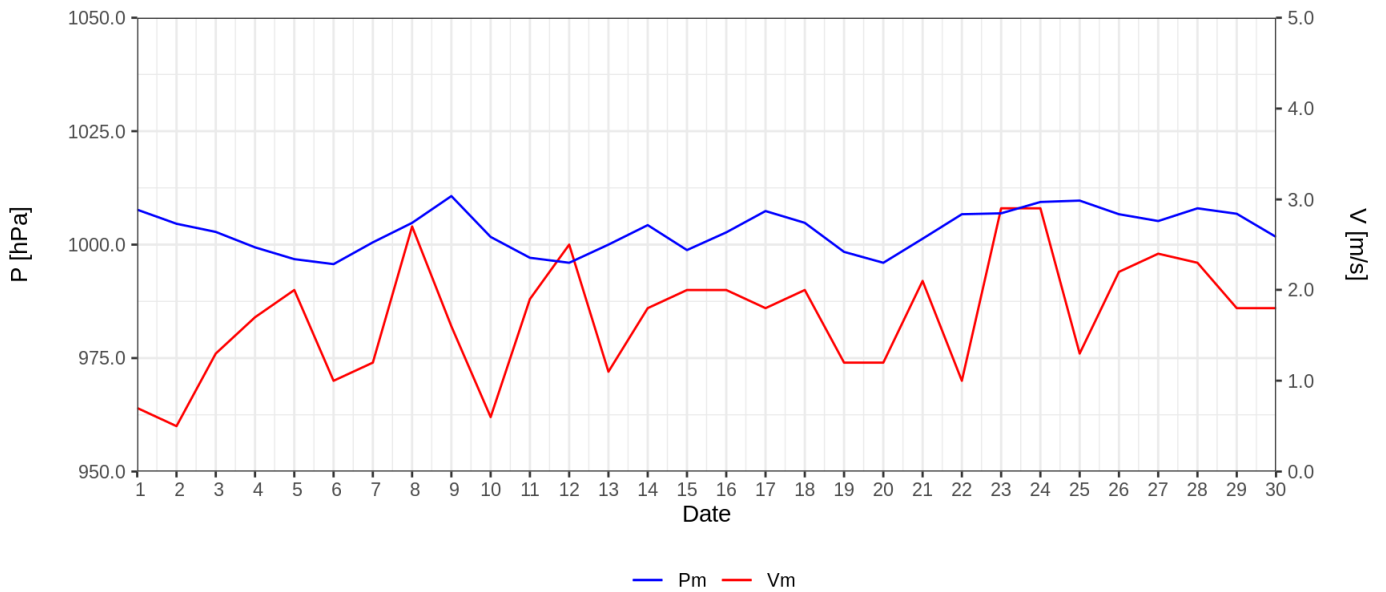
— June 2019

Ryc. 2. Stężenie pyłu zawieszonego PM2.5 (a) oraz PM10 (b) w zależności od kierunku wiatru

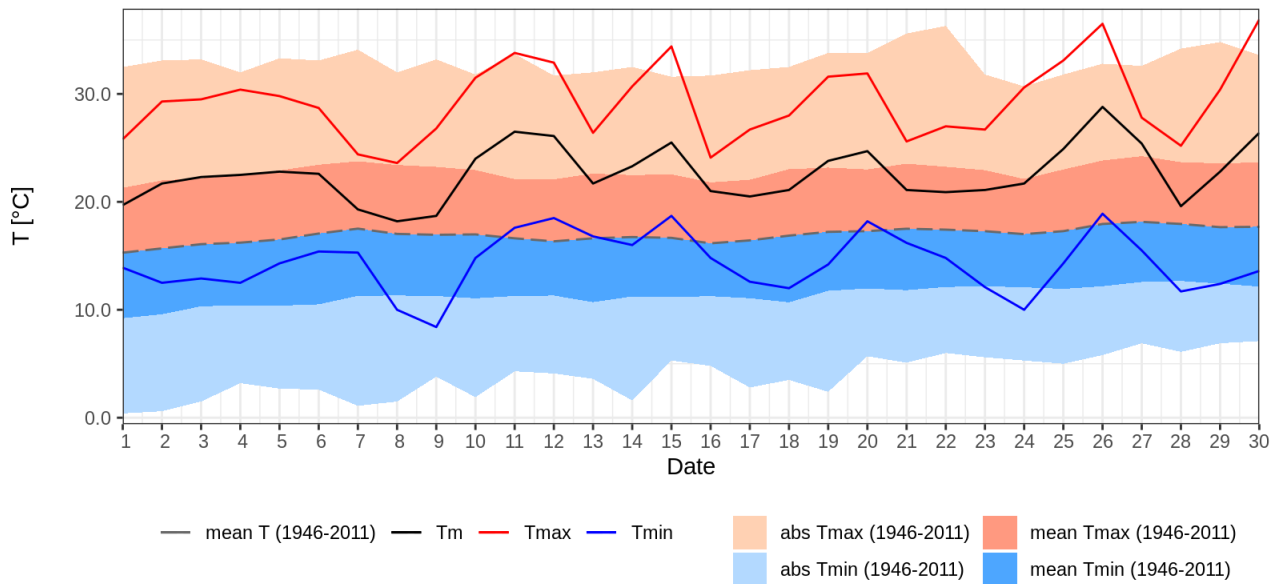
Fig. 2. PM2.5 (a) and PM10 (b) concentrations for a given wind direction



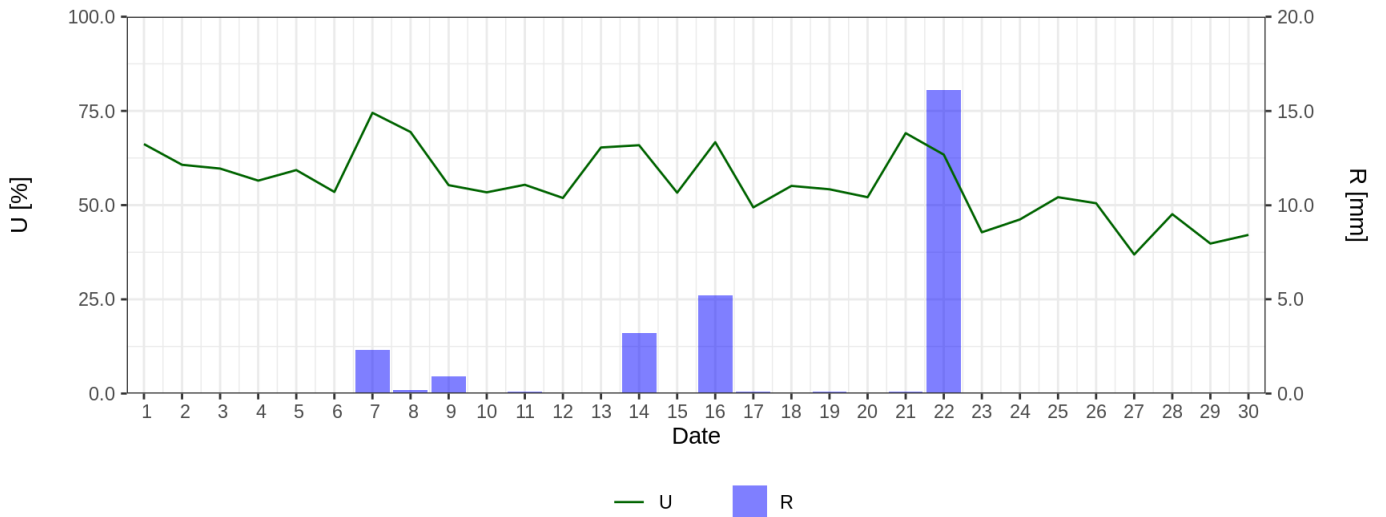
Ryc. 3. Stężenie O3 (a) oraz suma opadu (b) w zależności od kierunku wiatru  
 Fig. 3. O3 concentration (a) and sum of precipitation (b) for a given wind direction



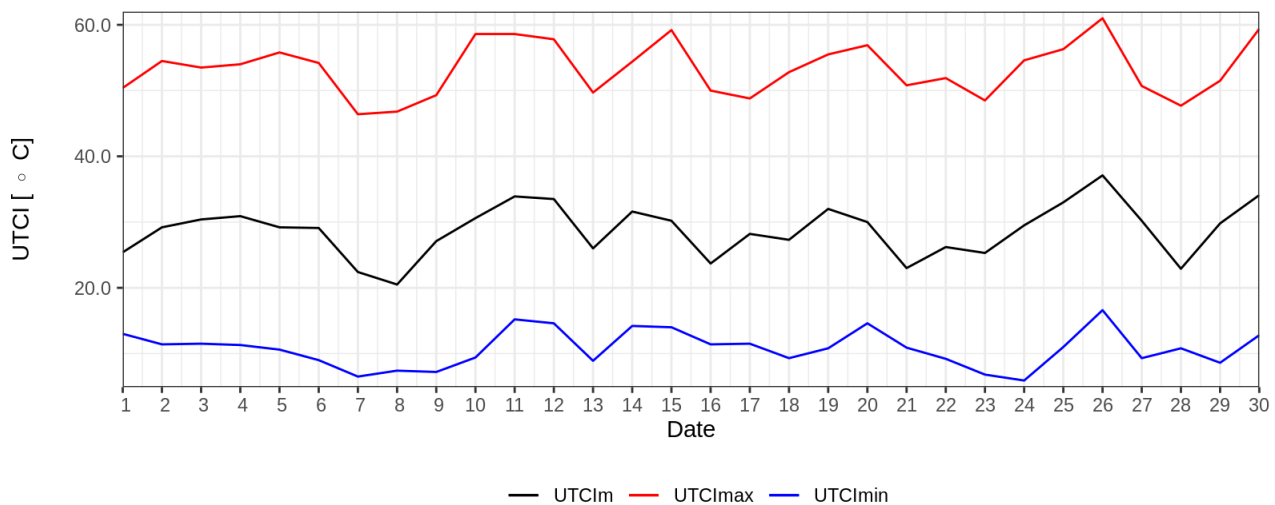
Ryc. 4. Średnie dobowe ciśnienie atmosferyczne i prędkość wiatru  
 Fig. 4. Daily average air pressure and wind speed



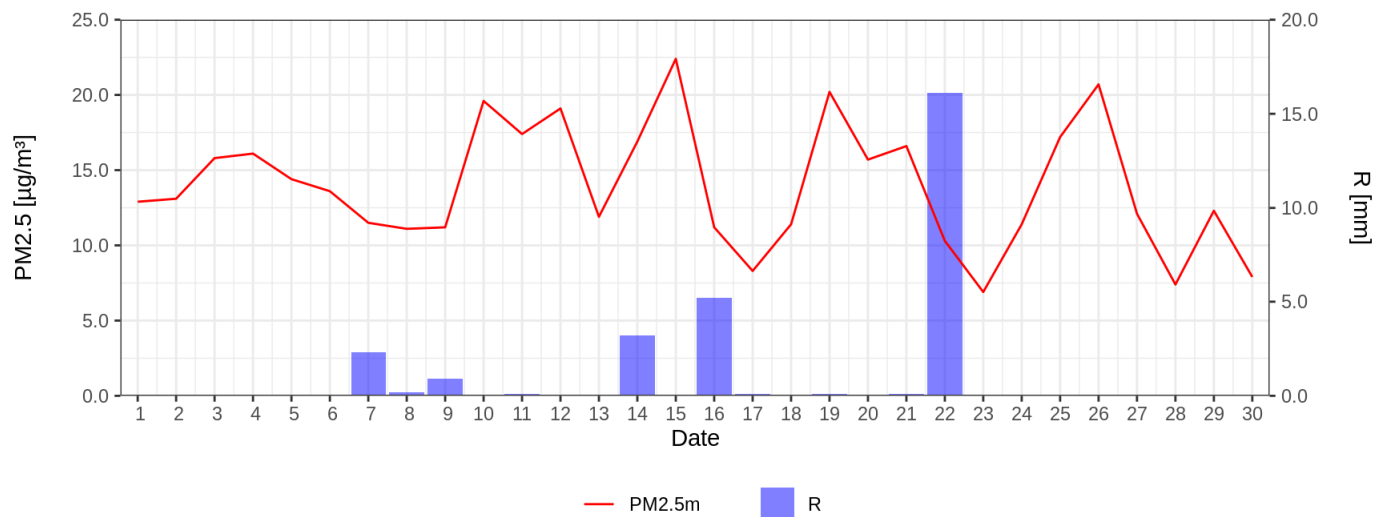
Ryc. 5. Średnia dobowa, minimalna i maksymalna temperatura powietrza dla miesiąca na tle danych z wielolecia 1946-2011  
 Fig. 5. Daily mean, maximum and minimum air temperature for given month and 1946-2011 period



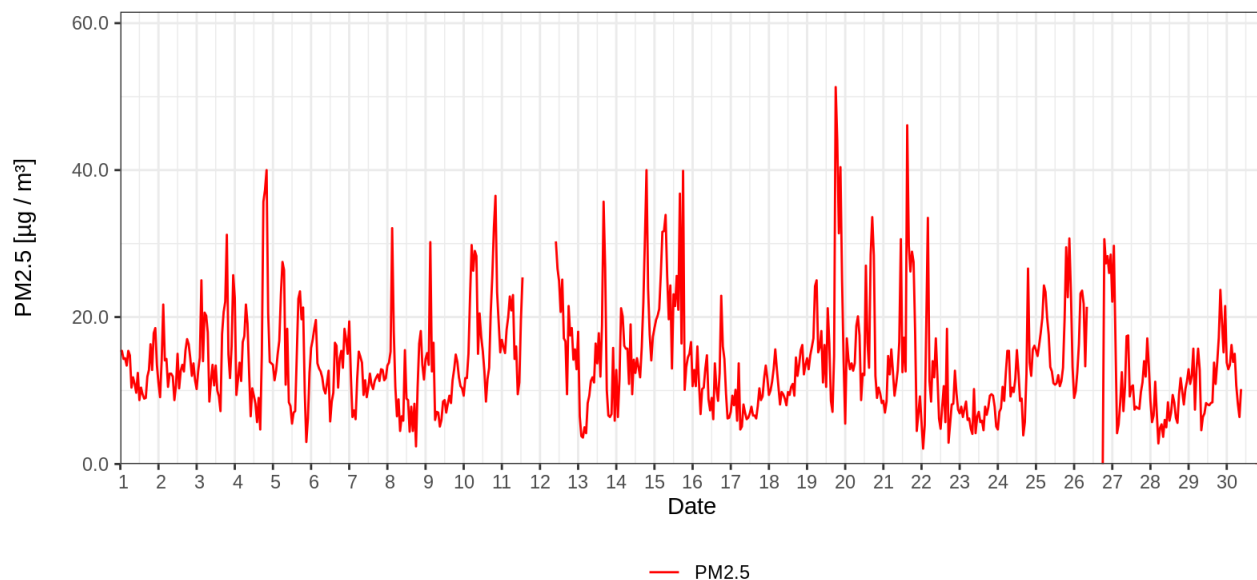
Ryc. 6. Średnia dobowa wilgotność względna powietrza i dobowe sumy opadu atmosferycznego  
 Fig. 6. Mean daily relative humidity and daily sum of precipitation



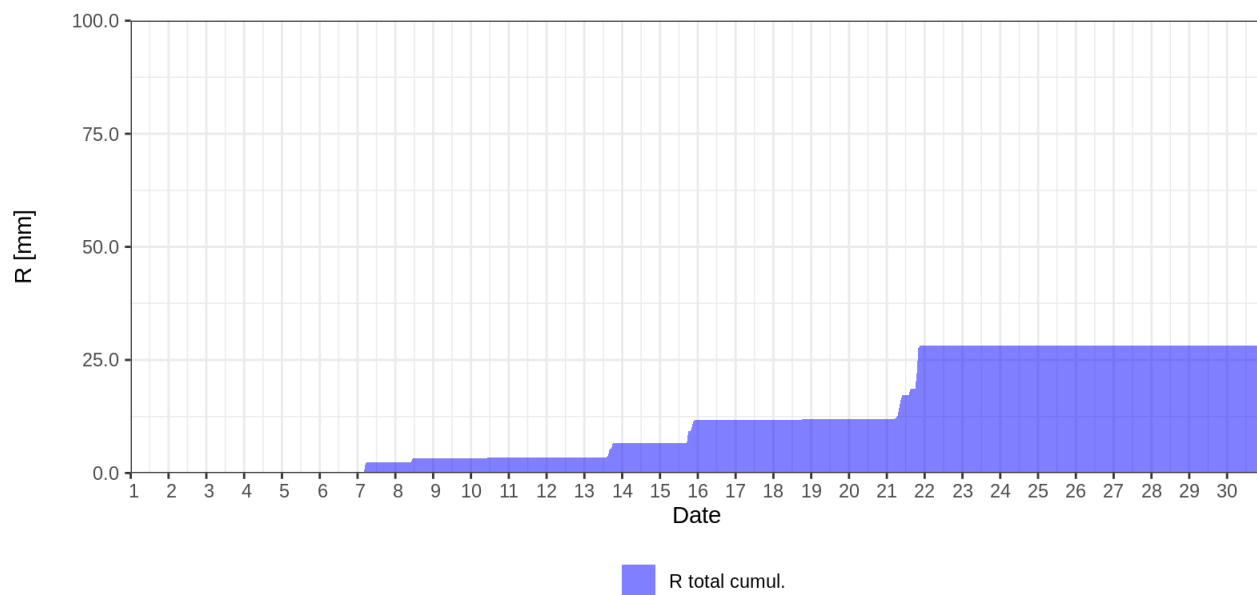
Ryc. 7. Średnia dobowa, minimalny i maksymalny wskaźnik UTCI  
 Fig. 7. Daily mean, maximum and minimum UTCI index



Ryc. 8. Średnie dobowe stężenie pyłu PM2.5 i dobowe sumy opadu atmosferycznego  
 Fig. 8. Daily average concentration of PM2.5 and daily precipitation sums



Ryc. 9. Godzinowe wielkości stężenia pyłu zawieszonego PM2.5  
 Fig. 9. Hourly average PM2.5 concentrations



Ryc. 10. Kumulowana suma opadu atmosferycznego  
 Fig. 10. Cumulative sum of daily precipitation