

Supporting Information.

New Method for the Synthesis of Isoxazoline-*N*-oxides.

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General.

NMR spectra were recorded in CDCl₃ on Bruker AM-300, WC-250, AC-200 instruments. Chemical shifts were measured relative to solvent residual peak.¹ Coupling constants are given in Hz. IR spectra were recorded on a Bruker VECTOR22 in KBr tablets.

Starting α -bromonitrocompounds **4a-d**^{2a} and **4e**^{2b} were prepared by literature procedures.

The cycloaddition reactions of alkenes **5** with α -bromonitrocompounds **4** were performed under dry argon using CH₂Cl₂ freshly distilled from CaH₂.

Phenylbromonitromethane **4c** from phenylnitromethane^{3a}:

The crude product was distilled in vacuum: bp 86-89°C (0.5 Torr). Lit.⁴ bp 75°C (0.4 Torr).

Yield 71%.

¹H (δ): 6.92 (s, 1H, CHNO₂), 7.37-7.59 (m, 3H, CH_{Ph}), 7.60-7.80 (m, 2H, CH_{Ph});

¹³C (δ): 80.4 (CNO₂), 128.2, 129.2 (o,m-CH_{Ph}), 131.4 (p-CH_{Ph}), 132.9 (i-C_{Ph}).

1-Bromo-2-phenylnitroethane **4d** from 2-phenylnitroethane^{3b}:

The crude product was distilled in vacuum: bp 80-84°C (0.5 Torr). Lit.⁵ 106-107 (1 Torr).

Yield 83%.

¹H (δ): 3.52 (dd, ²J = 14.7, ³J = 5.9, 1H, CH_AH_B), 3.77 (dd, ²J = 14.7, ³J = 8.1, 1H, CH_AH_B), 6.07 (dd, ³J = 8.1, ³J = 5.9, 1H, CHNO₂), 7.17-7.28 (m, 2H, CH_{Ph}), 7.30-7.43 (m, 3H, CH_{Ph});

¹³C (δ): 43.5 (CH₂), 79.2 (CHNO₂), 128.3 (p-CH_{Ph}), 129.1, 129.2 (o,m-CH_{Ph}), 133.3 (i-C_{Ph}).

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(2) Preparation of 1-bromonitroalkanes: (a) Erickson, A. S.; Kornblum, N. *J. Org. Chem.* **1977**, 42, 3764. (b) Fishwick, B. R.; Rowles, D. K.; Stirling, C. J. M. *J. Chem. Soc., Perkin Trans. 1*, **1986**, 1171.

(3) Preparation of starting nitro compounds: (a) Kornblum, N.; Larson, H. O.; Blackwood, R. K.; Mooberry, D. D.; Oliveto, E. P.; Graham, G. E. *J. Am. Chem. Soc.* **1956**, 78, 1497. (b) Bhattacharjya, A.; Mukhopadhyay, R.; Pakrashi, S. C. *Synthesis* **1985**, 886.

(4) Trippett, S.; Walker, D. M. *J. Chem. Soc.* **1960**, 2976.

(5) Clark, N. G.; Croshaw, B.; Leggetter, B. E.; Spooner, D. F. *J. Med. Chem.* **1974**, 17, 977.

Isoxazoline-*N*-oxides 2a-n from α -bromonitrocompounds 4a-d; General procedure

To a solution of bromonitro compound **4** (1 mmol) and TBSCl (1.1 mmol, 166 mg) in CH₂Cl₂ (3.5 ml) at 0°C was added Et₃N (1.1 mmol, 0.15 ml). The silylation was allowed to proceed at room temperature for the time T₁ (see Table S1). Alkene **5** was added and the reaction mixture was kept for time T₂ (see Table S1), quenched by Et₃N (1.5 mmol, 0.21 ml), MeOH (1.5 mmol, 0.06 ml) and stirred for additional 5 min. The most part of the solvent was evaporated in vacuum and the residue was subjected to column chromatography (silica gel, petroleum ether / EtOAc).

5-Phenylisoxazoline-*N*-oxide 2o.

The reaction was run according to general procedure described above. For the work up, instead of quenching the reaction mixture with Et₃N/MeOH, after time T₂ (3 d) the solvent was evaporated in vacuum and the residue was subjected to column chromatography (silica gel, petroleum ether / EtOAc).

Table S1. Reaction time.

Entry	4	5	2	Time	
				T ₁	T ₂
1	4a	5a	2a	1 d	3 d
2	4a	5b	2b	1 d	7 d
3	4a	5c	2c	1 d	3 d
4	4a	5d	2d	2 h	7 d
5	4a	5e	2e	2 h	3 d
6	4a	5f	2f	2 h	14 d
7	4b	5b	2g	1 d	7 d
8	4b	5d	2h	2 h	7 d
9	4b	5e	2i	2 h	3 d
10	4c	5a	2j	1 d	30 d
11	4d	5b	2k	1 d	7 d
12	4d	5e	2l	2 h	3 d
13	4d	5g	2m	2 h	30 d
14	4d	5h	2n	2 h	14 d
15	4e	5d	2o	5 min	3 d
16	4a	5a	8a	1 d	4 d

The dipolarophiles bearing electron-withdrawing group (i.e. methyl acrylate **5a**, methyl metacrylate **5b**, methyl vinyl ketone **5c**) may undergo Michael reaction with nitro compound. To avoid this problem it is better to allow the silylation of bromonitro compound **4** to go to completion before the addition of such kind of alkenes. This explains the necessity for the stepwise addition of the reagents.

3-Methyl-5-methoxycarbonylisoxazoline-*N*-oxide (2a):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→EtOAc; R_f (Petroleum ether / EtOAc, 1:3) 0.26; oil.

^1H (δ): 1.96 (s, 3H, Me), 3.23 (ddq, $^2J = 17.7$, $^3J = 5.1$, $^4J = 1.5$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.44 (ddq, $^2J = 17.7$, $^3J = 10.3$, $^4J = 2.2$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.79 (s, 3H, MeO), 4.97 (dd, $^3J = 5.1$, $^3J = 10.3$, 1H, CH);

^{13}C (δ): 11.3 (Me), 37.3 (CH_2), 52.7 (MeO), 70.1 (CH), 110.1 (CN), 169.6 (COOMe);

IR(cm^{-1}): 1657 (C=N), 1745 (C=O).

The neat product decomposes at room temperature within few hours; it can be stored for a long time at $-30\text{ }^\circ\text{C}$.

3,5-Dimethyl-5-methoxycarbonylisoxazoline-*N*-oxide (2b):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→EtOAc; R_f (Petroleum ether / EtOAc, 1:3) 0.26; mp $33\text{--}34^\circ\text{C}$ (Et_2O).

^1H (δ): 1.59 (s, 3H, Me), 1.90 (s, 3H, MeCN), 2.95 (d, $^2J = 17.7$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.41 (d, $^2J = 17.7$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.73 (s, 3H, MeO);

^{13}C (δ): 11.7 (MeCN), 23.3 (Me), 43.8 (CH_2), 53.2 (MeO), 78.3 (C), 112.2 (CN), 171.8 (COOMe);

IR (cm^{-1}): 1657 (C=N), 1743 (C=O).

Anal. Calcd for $\text{C}_7\text{H}_{11}\text{NO}_4$: C, 48.55; H, 6.40; N, 8.09; Found: C, 48.27; H, 6.64; N, 8.12.

5-Acetyl-3-methylisoxazoline-*N*-oxide (2c): The yield of 77 % was determined by ^1H NMR spectroscopy with *trans*-stilbene as standard. This product decomposes upon isolation affording after chromatography purified material in only 11 % yield.

Eluent for column chromatography: Petroleum ether / EtOAc (1:3)→EtOAc; R_f (Petroleum ether / EtOAc, 1:3) 0.18; mp $42\text{--}45^\circ\text{C}$ (Et_2O).

^1H (δ): 1.97 (s, 3H, Me), 2.35 (s, 3H, MeCO), 3.22-3.34 (m, 2H, CH_2), 4.78 (dd, $^3J = 9.8$, $^3J = 5.9$, 1H, CH);

^{13}C (δ): 11.7 (Me), 26.5 (MeCO), 36.3 (CH_2), 76.3 (CH), 111.3 (CN), 206.3 (CO);

IR (cm^{-1}): 1654 (C=N), 1725 (C=O).

The neat product decomposes at room temperature within few hours; it can be stored for a long time at $-30\text{ }^{\circ}\text{C}$.

3-Methyl-5-phenylisoxazoline-*N*-oxide (2d):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→EtOAc; R_f (Petroleum ether / EtOAc, 1:3) 0.29; mp $77-78^{\circ}\text{C}$ (Et_2O).

^1H (δ): 2.02 (s, 3H, Me), 3.08 (ddq, $^2J=16.9$, $^3J=7.4$, $^4J=1.5$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.48 (ddq, $^2J=16.9$, $^3J=9.6$, $^4J=2.2$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 5.58 (dd, $^3J=9.6$, $^3J=7.4$, 1H, CH), 7.28-7.49 (m, 5H, Ph);

^{13}C (δ): 11.8 (Me), 42.2 (CH_2), 75.4 (CH), 112.1 (CN), 125.6, 128.9 (o,m- CH_Ph), 128.6 (p- CH_Ph), 139.0 (i- C_Ph);

IR (cm^{-1}): 1641 (C=N).

Anal. Calcd for $\text{C}_{10}\text{H}_{11}\text{NO}_2$: C, 67.78; H, 6.26; N, 7.90; Found: C, 67.80; H, 6.45; N, 8.05.

3-Methyl-5-(2-pyridyl)isoxazoline-*N*-oxide (2e):

The crude product contains *ca.* 10 % of bicyclic adduct which has the retention time similar to that of the desired product. Because of this, the later fractions can be slightly contaminated.

Eluent for column chromatography: EtOAc→MeOH / EtOAc (1:2); R_f (MeOH / EtOAc, 1:4) 0.35; oil.

^1H (δ): 1.90 (s, 3H, Me), 3.31 (ddq, $^2J=17.3$, $^3J=5.6$, $^4J=1.7$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.50 (ddq, $^2J=17.3$, $^3J=9.7$, $^4J=1.7$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 5.53 (dd, $^3J=9.7$, $^3J=5.6$, 1H, CH), 7.10-7.24 (m, 1H, 5- CH_Py), 7.48 (d, $^3J=7.6$, 1H, 3- CH_Py), 7.65 (td, $^3J=7.6$, $^4J=1.7$, 1H, 4- CH_Py), 8.49 (d, $^3J=4.9$, 1H, 6- CH_Py);

^{13}C (δ): 11.6 (Me), 39.8 (CH_2), 74.6 (CH), 111.9 (CN), 120.3, 123.2 (3,5- CH_Py), 136.9, 149.4 (4,6- CH_Py), 158.0 (2- C_Py);

IR (cm^{-1}): 1651 (C=N).

Anal. Calcd for $\text{C}_9\text{H}_{10}\text{N}_2\text{O}_2$: C, 60.66; H, 5.66; N, 15.72; Found: C, 60.40; H, 5.52; N, 15.83.

3-Methyl-5-ethoxyisoxazoline-*N*-oxide (2f):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→Petroleum ether / EtOAc (1:3); R_f (Petroleum ether / EtOAc, 1:3) 0.29; oil.

^1H (δ): 1.14 (t, $^3J=7.2$, 3H, CH_2Me), 1.92 (s, 3H, Me), 2.75 (d, $^2J=18.4$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.28 (dd, $^2J=18.4$, $^3J=6.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.49 (qvint, $^3J=7.2$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}\text{Me}$), 3.82 (qvint, $^3J=7.2$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}\text{Me}$), 5.36 (d, $^3J=6.6$, 1H, CH);

^{13}C (δ): 11.4 (Me), 14.8 (MeCH_2), 41.0 (CH_2), 64.1 (CH_2Me), 96.3 (CH), 111.4 (CN);

IR (cm^{-1}): 1651 (C=N).

Anal. Calcd for $\text{C}_6\text{H}_{11}\text{NO}_3$: C, 49.65; H, 7.64; N, 9.65; Found: C, 49.51; H, 7.76; N, 9.68.

3-Ethyl-5-methyl-5-methoxycarbonylisoxazoline-*N*-oxide (2g):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1) $\rightarrow$ Petroleum ether / EtOAc (1:3);

R_f (Petroleum ether / EtOAc, 1:3) 0.44; oil.

^1H (δ): 1.05 (t, $^3J = 7.7$, 3H, CH_2Me), 1.60 (s, 3H, MeC), 2.33 (q, $^3J = 7.7$, 2H, CH_2Me), 2.95 (d, $^2J = 17.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.42 (d, $^2J = 17.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.74 (s, 3H, MeO);

^{13}C (δ): 9.5 (CH_2Me), 19.4 (CH_2Me), 23.1 (Me), 42.0 (CH_2), 53.0 (MeO), 76.7 (C), 116.4 (CN), 171.6 (COOMe);

IR (cm^{-1}): 1650 (C=N), 1743 (C=O).

Anal. Calcd for $\text{C}_8\text{H}_{13}\text{NO}_4$: C, 51.33; H, 7.00; N, 7.48; Found: C, 51.20; H, 7.20; N, 7.27.

3-Ethyl-5-phenylisoxazoline-*N*-oxide (2h):

Eluent for column chromatography: Petroleum ether / EtOAc (2:1) $\rightarrow$ Petroleum ether / EtOAc (1:3);

R_f (Petroleum ether / EtOAc, 1:1) 0.26; mp 52-54°C (Et_2O).

^1H (δ): 1.12 (t, $^3J = 7.6$, 3H, Me), 2.44 (q, $^3J = 7.6$, 2H, CH_2Me), 3.04 (ddt, $^2J = 17.0$, $^3J = 7.6$, $^4J = 1.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.48 (ddt, $^2J = 17.0$, $^3J = 9.7$, $^4J = 1.4$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 5.56 (dd, $^3J = 9.7$, $^3J = 7.6$, 1H, CH), 7.26-7.46 (m, 5H, Ph);

^{13}C (δ): 9.8 (Me), 19.6 (CH_2Me), 40.5 (CH_2), 75.5 (CH), 116.6 (CN), 125.6, 128.9 (o,m- CH_Ph), 128.7 (p- CH_Ph), 139.2 (i- C_Ph);

IR (cm^{-1}): 1639 (C=N).

Anal. Calcd for $\text{C}_{11}\text{H}_{13}\text{NO}_2$: C, 69.09; H, 6.85; N, 7.32; Found: C, 69.16; H, 7.01; N, 7.42.

3-Ethyl-5-(2-pyridyl)isoxazoline-*N*-oxide (2i):

Eluent for column chromatography: Petroleum ether / EtOAc (1:2) $\rightarrow$ EtOAc; R_f (EtOAc) 0.21; oil.

^1H (δ): 1.03 (t, $^3J = 7.4$, 3H, CH_2Me), 2.25-2.46 (m, 2H, CH_2Me), 3.33 (ddt, $^2J = 17.7$, $^3J = 5.9$, $^4J = 1.5$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.51 (ddt, $^2J = 17.7$, $^3J = 9.6$, $^4J = 1.5$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 5.56 (dd, $^3J = 9.6$, $^3J = 5.9$, 1H, CH), 7.19 (dd, $^3J = 7.4$, $^3J = 5.2$, 1H, 5- CH_Py), 7.52 (d, $^3J = 7.4$, 1H, 3- CH_Py), 7.67 (td, $^3J = 7.4$, $^4J = 1.5$, 1H, 4- CH_Py), 8.51 (d, $^3J = 5.2$, 1H, 6- CH_Py);

^{13}C (δ): 9.6 (CH_2Me), 19.6 (CH_2Me), 38.3 (CH_2), 75.0 (CH), 116.3 (CN), 120.3, 123.3 (3,5- CH_Py), 137.0, 149.5 (4,6- CH_Py), 158.2 (2- C_Py);

IR (cm^{-1}): 1645 (C=N).

Anal. Calcd for $C_{10}H_{12}N_2O_2$: C, 62.16; H, 6.78; N, 14.50; Found: C, 62.20; H, 6.45; N, 14.74.

3-Phenyl-5-methoxycarbonylisoxazoline-*N*-oxide (2j):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→Petroleum ether / EtOAc (1:3);

R_f (Petroleum ether / EtOAc, 1:3) 0.56; mp 123-125°C (Et_2O).

1H (δ): 3.71 (dd, $^2J = 16.6$, $^3J = 5.1$, 1H, CH_AH_B), 3.88 (dd, $^2J = 16.6$, $^3J = 10.3$, 1H, CH_AH_B), 3.83 (s, 3H, MeO), 5.13 (dd, $^3J = 10.3$, $^3J = 5.1$, 1H, CH), 7.33-7.53 (m, 3H, o,p- CH_{Ph}), 7.79-7.97 (m, 2H, m- CH_{Ph});

^{13}C (δ): 35.8 (CH_2), 53.1 (MeO), 70.5 (CH), 111.9 (CN), 126.0 (i- C_{Ph}), 126.1, 128.8 (o,m- CH_{Ph}), 129.8 (p- CH_{Ph}), 169.8 (COOMe);

IR (cm^{-1}): 1624 (C=N), 1742 (C=O).

Anal. Calcd for $C_{11}H_{11}NO_4$: C, 59.73; H, 5.01; N, 6.33; Found: C, 59.65; H, 5.01; N, 6.27.

3-Benzyl-5-methyl-5-methoxycarbonylisoxazoline-*N*-oxide (2k):

Eluent for column chromatography: Petroleum ether / EtOAc (2:1)→Petroleum ether / EtOAc (1:3);

R_f (Petroleum ether / EtOAc, 1:1) 0.26; mp 67-68°C (Et_2O).

1H (δ): 1.62 (s, 3H, Me), 2.87 (dt, $^2J = 17.4$, $^4J = 1.7$, 1H, CH_AH_B), 3.34 (dt, $^2J = 17.4$, $^4J = 1.6$, 1H, CH_AH_B), 3.69 (s, 2H, CH_2Ph), 3.77 (s, 3H, MeO), 7.16-7.40 (m, 5H, CH_{Ph});

^{13}C (δ): 23.1 (Me), 32.5 (CH_2Ph), 42.4 (CH_2), 53.1 (MeO), 76.5 (C), 114.4 (CN), 127.5 (p- CH_{Ph}), 128.7, 129.0 (o,m- CH_{Ph}), 134.8 (i- C_{Ph}), 171.6 (COOMe);

IR (cm^{-1}): 1646 (C=N), 1733 (C=O).

Anal. Calcd for $C_{13}H_{15}NO_4$: C, 62.64; H, 6.07; N, 5.62; Found: C, 62.66; H, 6.14; N, 5.39.

3-Benzyl-5-(2-pyridyl)isoxazoline-*N*-oxide (2l):

Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→Petroleum ether / EtOAc (1:3);

R_f (Petroleum ether / EtOAc, 1:3) 0.30; mp 51-52°C (Et_2O).

1H (δ): 3.26 (dd, $^2J = 17.3$, $^3J = 5.9$, 1H, CH_AH_B), 3.44 (dd, $^2J = 17.3$, $^3J = 9.7$, 1H, CH_AH_B), 3.63 (d, $^2J = 23.2$, 1H, CH_AH_BPh), 3.75 (d, $^2J = 23.2$, 1H, CH_AH_BPh), 5.58 (dd, $^3J = 9.7$, $^3J = 5.9$, 1H, CH), 7.08-7.742 (m, 6H, CH_{Ph} and 5- CH_{Py}), 7.55 (d, $^3J = 7.6$, 1H, 3- CH_{Py}), 7.71 (td, $^3J = 7.6$, $^4J = 1.2$, 1H, 4- CH_{Py}), 8.52 (d, $^3J = 4.5$, 1H, 6- CH_{Py});

^{13}C (δ): 32.5 (CH_2Ph), 38.5 (CH_2), 75.2 (CH), 114.5 (CN), 120.3, 123.3 (5,3- CH_{Py}), 127.3 (p- CH_{Ph}), 128.7, 128.9 (o,m- CH_{Ph}), 134.8 (i- C_{Ph}), 137.0, 149.6 (4,6- CH_{Py}), 158.0 (2- CH_{Py});

IR (cm^{-1}): 1638 (C=N).

Anal. Calcd for $C_{15}H_{14}N_2O_2$: C, 70.85; H, 5.55; N, 11.02; Found: C, 70.92; H, 5.60; N, 10.93.

3-Benzyl-5-pentylisoxazoline-*N*-oxide (2m):

Eluent for column chromatography: Petroleum ether / EtOAc (3:1)→Petroleum ether / EtOAc (1:1);
 R_f (Petroleum ether / EtOAc, 3:1) 0.19; oil.

^1H (δ): 0.84 (t, $^3J = 6.6$, 3H, Me), 1.12-1.83 (m, 8H, CH_2 groups of pentyl), 2.57 (dd, $^2J = 17.0$, $^3J = 8.0$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 2.97 (dd, $^2J = 17.0$, $^3J = 9.0$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.66 (s, 2H, CH_2Ph), 4.42-4.61 (m, 1H, CH), 7.12-7.36 (m, 5H, CH_Ph);

^{13}C (δ): 13.7 (Me), 22.3, 24.3, 31.2, 32.4, 34.7, 37.7 (all CH_2), 74.9 (CH), 115.4 (CN), 127.1 (p- CH_Ph), 128.6, 128.8 (o,m- CH_Ph), 135.1 (i- C_Ph);

IR(cm^{-1}): 1640 (C=N).

Anal. Calcd for $\text{C}_{15}\text{H}_{21}\text{NO}_2$: C, 72.84; H, 8.56; N, 5.66; Found: C, 72.87; H, 8.52; N, 5.79.

3-Benzyl-5-triethylsilylisoxazoline-*N*-oxide (2m):

Eluent for column chromatography: Petroleum ether / EtOAc (10:1)→Petroleum ether / EtOAc (5:1); R_f (Petroleum ether / EtOAc, 5:1) 0.19; oil.

^1H (δ): 0.57-0.73 (m, 6H, $3\times\text{MeCH}_2$), 0.91-1.04 (m, 9H, $3\times\text{MeCH}_2$), 2.76-3.10 (m, 2H, CH_2), 3.64 (d, $^2J = 15.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}\text{Ph}$), 3.80 (d, $^2J = 15.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}\text{Ph}$), 4.20 (dd, $^3J = 14.0$, $^3J = 9.9$, 1H, CH), 7.18-7.42 (m, 5H, CH_Ph);

^{13}C (δ): 1.5 (CH_2Si), 7.2 (MeCH_2), 32.6 (CH_2Ph), 35.9 (CH_2), 67.5 (CH), 115.0 (CN), 127.2 (p- CH_Ph), 128.7, 128.9 (o,m- CH_Ph), 135.5 (i- C_Ph);

IR(cm^{-1}): 1637 (C=N).

Anal. Calcd for $\text{C}_{16}\text{H}_{25}\text{NO}_2\text{Si}$: C, 65.93; H, 8.65; N, 4.81; Found: C, 65.78; H, 8.70; N, 4.79.

5-Phenylisoxazoline-*N*-oxide (2n):

Eluent for column chromatography: Petroleum ether / EtOAc (3:1)→Petroleum ether / EtOAc (1:1);
 R_f (Petroleum ether / EtOAc, 1:1) 0.24.

^1H (δ): 3.05 (ddd, $^2J = 17.7$, $^3J = 7.9$, $^3J = 2.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 3.46 (ddd, $^2J = 17.7$, $^3J = 9.8$, $^3J = 2.6$, 1H, $\text{CH}_\text{A}\text{H}_\text{B}$), 5.69 (dd, $^3J = 9.8$, $^3J = 7.9$, 1H, CHO), 6.10 (t, $^2J = 2.6$, 1H, CHN), 7.17-7.54 (m, 5H, CH_Ph);

^{13}C (δ): 38.0 (CH_2), 78.3 (CHO), 103.8 (CN), 128.8 (p- CH_Ph), 125.7, 128.9 (o,m- CH_Ph), 138.6 (i- C_Ph);

The product is fairly prone to decomposition at room temperature. Purified material can be stored at $-78\text{ }^\circ\text{C}$.

3,7-Dicarbomethoxy-5-methyl-2,8-dioxo-1-azabicyclo[3,3,0]octane (8a): This product was obtained according to general procedure using 50 eq. of methyl acrylate. Mixture of diastereoisomers 1 : 1. Eluent for column chromatography: Petroleum ether / EtOAc (1:1)→Petroleum ether / EtOAc (1:3); R_f (Petroleum ether / EtOAc, 1:3) 0.40 (for two isomers); mp 68-69°C (Et₂O).

¹H (δ): 1.27 (s, Me) and 1.31 (s, Me)(3H), 2.16-2.34 and 2.46-2.69 (m, 2×CH₂)(4H), 3.62-3.70 (m, 6H, 2×MeO), 4.67-4.87 (m, 2H, 2×CH);

¹³C (δ): 23.2, 23.3 (Me), 39.6, 40.0, 41.2, 41.8 (2×CH₂), 52.2, 52.3, 52.4 (2×CH), 74.9, 77.2, 78.7 (2×MeO), 170.3, 170.9 (2×COOMe);

Anal. Calcd for C₁₀H₁₅NO₆: C, 48.98; H, 6.17; N, 5.71; Found: C, 48.64; H, 6.06; N, 5.69.

Silyl nitronate 6a from 1-bromonitroethane:

To a solution of 1-bromonitroethane (5 mmol, 770 mg) and TBSCl (5.5 mmol, 166 mg) in CH₂Cl₂ (17.5 ml) at 0°C was added Et₃N (5.5 mmol, 0.77 ml). After 24 h at room temperature the reaction mixture was evaporated and petroleum ether (30 ml) was added. The mixture was stirred for 10 min, Et₃NHCl was filtered off under argon atmosphere and solvent was evaporated in vacuum. The residue was distilled in a Kugelrohr apparatus: 60-80 °C (0.5 Torr). Yield 88%.

¹H (δ): 0.34 (s, 6H, Me₂Si), 0.96 (s, 9H, Me₃C), 2.50 (s, 3H, Me);

¹³C (δ): -4.2 (Me₂Si), 17.9 (Me₃C), 23.3 (CBr), 25.9 (Me₃C), 104.6 (CN);

²⁹Si (δ): 30.50.

Anal. Calcd for C₈H₁₈BrNO₂Si: C, 35.82; H, 6.76; N, 5.22; Found: C, 35.92; H, 6.99; N, 5.47.