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**Міністерство освіти та науки України
Державний вищий навчальний заклад
Донецький національний технічний університет
Факультет екології та хімічної технології
Кафедра "Природоохоронна діяльність"**

**Індивідуальна робота
по дисципліні "Основи екології"
на тему
Історія становлення екологічної науки**

**Виконав: студент гр. ЕГС-09
Іванов І.І.**

Перевірів: доц., к.т.н. Петров П.П.

Донецьк, 2010

2.1.5.

" " [1, 28, 30, 41, 54, 55, 61, 62].

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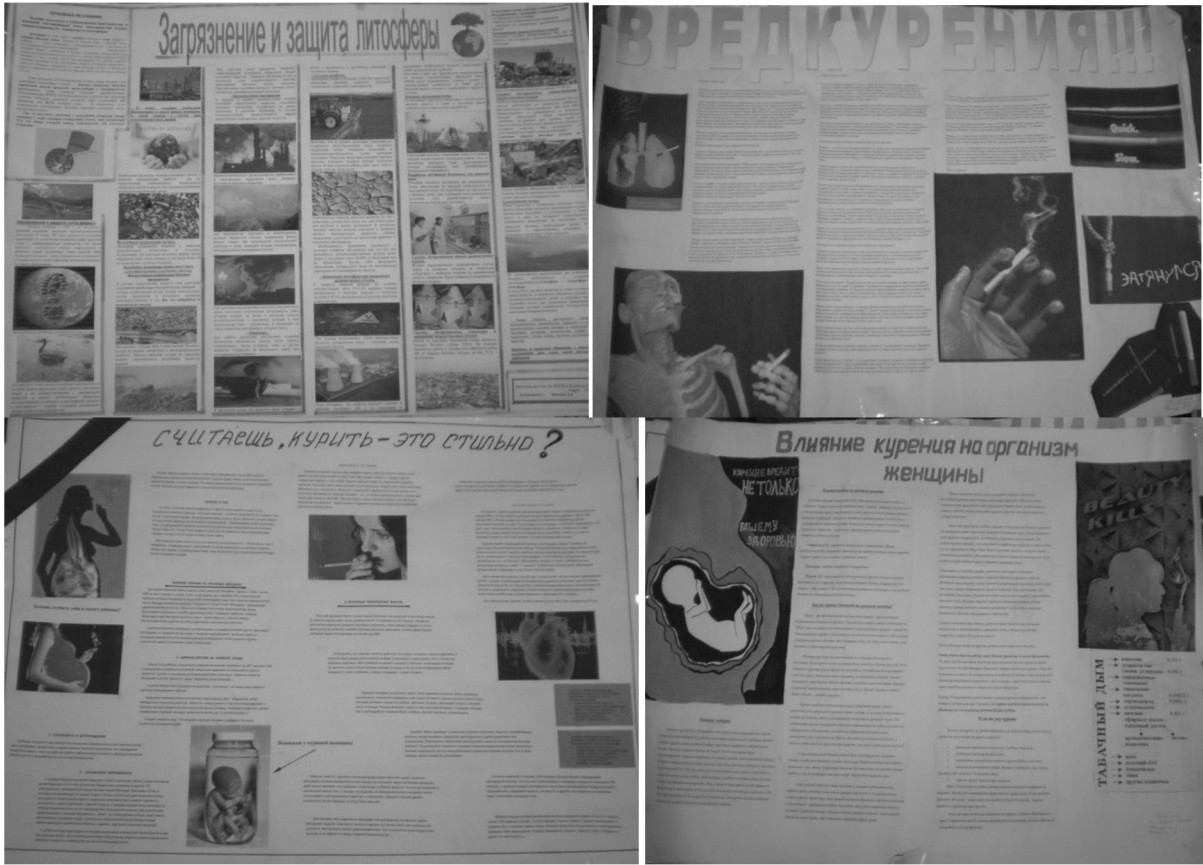
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1. . . . : . . . / . . . , . . .
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 2. , . . . / . . . , - . :
, 1991. - 121 .
 3. , -
. : , 1991. - 265 .
 4. , . . .
. - . : 1994. - 261 .
 5. (. . .) . - . : , 1989. - 261 .
 6. , - . : , 1994. - 237 .
 7. , . . .
. - : , 1992. - 97 .
 8. , - . , 1996. -
89 .
 9. , - . , 1991. -
428 .

10. /
 , - . : , 1991. - 424 .
11. / , . .
 . - . , 2000. - 380 .
12. :
 . 2- . - . : , 1996.
13. / -
 : , , 1994. - 285 .
14. - . , 1996. - 385 .
15. : - . - / :
 , 2002. - 593 .
16.
 . - . , 1998. - 671 .
17. , . - . :
 , 1990. - 384 .
18. - . , 1995. - 364 .
19.
 . - . : , 1991. - 246 .
20. /
 , - . : , 1992. - 256 .
21. /
 - . : , 1991. - 64 .
22. - . : 1994. - 253
23.
 . - . : , 2000 - 232 .
24. - . : , 1990. -
 237 .
25. / , . .
 . - . : , 1990. - 127 .
26. : . - . :
 , 2000. - 274 .
27. - . :
 , 1990. - 231 .
28. / , -
 / : , 2001. - 428 .
29. :
 « » - . / : , 2003. - 384 .
30. / , -
 / : , 2003. - 637 .
31. - . : , 1991. - 62
32.
 . - . : 1995. - 95 .

33. // . – 1992. – 5–6. – 38–43.
34. . – .: , 1992. – 160 .
35. . – ., 1998. – 957 .
36. . – .: , 1991. – 287 .
37. . – .: , 1993. – 193 .
38. . – .: , 1990. – 91 .
39. . – .: , 2000. – 608 .
40. . – ., 1998. – 257 .
41. . – .: – , 2000. – 534 .
42. . – .: , 1990. – 198 .
43. . – .: , 1995. – 537 .
44. . – ., 1998. – 97 .
45. . – .: , 1990. – 87 .
46. / – : , 1991. – 163 .
47. . – ., 2001. – 263 .
48. / – ., 2000. – 279 .
49. . – .: , 1995. – 528 .
50. . – ., 1994. – 364 .
51. / – ., 1994. – 457 .
52. – ., 1989.
53. . – .: ., 1994. – 399 .
54. . – .: , 2004. – 272 .
55. . – .: – ., 2001. – 582 .

- 56. , 1986.
- 57. : . - . : , 1991. - 386 .
- 58. - . : , 2002. - 375 .
- 59. . - . , 1998. - 147 .
- 60. : . - . : , 1993. - . 2. - 1080 .
- 61. / - . : , 1999. - 276 .
- 62. : / - / : « » , 2002. - 658 .
- 63. , / , - . : , 1991. - 237 .
- 64. , / , . - . : , 2004. - 256 .

